June 1961

SCHOOL MANAGEMENT

PRACTICAL SOLUTIONS TO SCHOOL MANAGEMENT PROBLEMS

A SCHOOLMAN'S GUIDE TO LANGUAGE LABORATORIES

WHEN TO BUY • HOW TO BUY • WHERE TO BUY

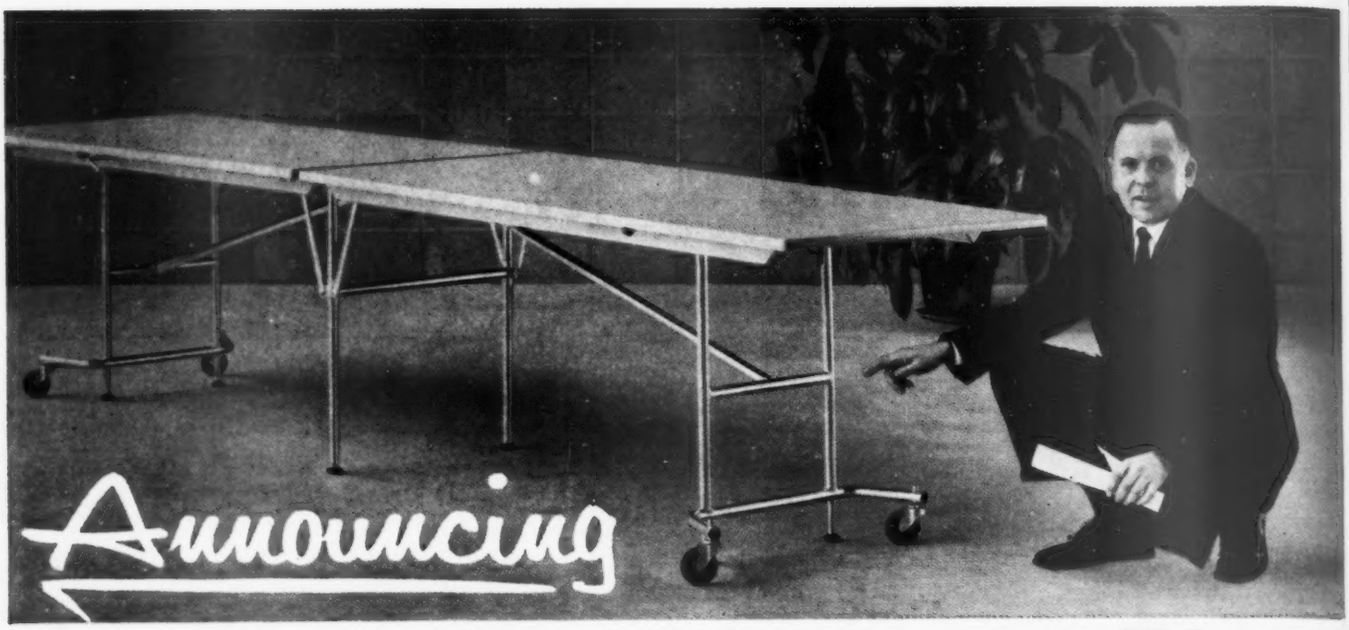
How to make your vocational training program pay off

HOW THEY HANDLE MERIT PAY

STUDIES
CASE
THREE

A NEW WAY TO PLOT YOUR BUS ROUTES

SEE COMPLETE CONTENTS ON PAGE 2



Another Improvement First

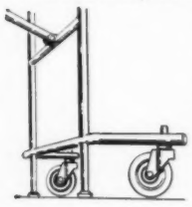
In Benchless Roll-Away Folding Tables

NEW LOK-STEADY LEG DESIGN GIVES ROCK-LIKE STABILITY TO TABLES... AUTOMATICALLY!

Gentlemen: It was my pleasure to announce to you a short time ago our new Uniframe method of construction. This development was enthusiastically received, and some of our competitors immediately paid us a supreme compliment, imitation.

Now I am pleased to bring to your attention another new improvement, Lok-Steady leg construction. Our first application of this new technique has been on our benchless roll-away folding tables.

You may be familiar with the fact that previously there was one serious difficulty with roll-away folding tables—even after unfolding, they tended to "roll-away." This was because the wheel-equipped legs were designed to rest on their wheels after unfolding. Rolling was inevitable. With Lok-Steady construction, this problem is eliminated forever.



Lok-Steady legs do have wheels, naturally, but they have also retractable rubber-tipped steel feet. These feet are linked to the folding mechanism. When the table is unfolded, the feet automatically extend until, when the table is fully unfolded, the casters are raised from the floor completely.

Resting on the extended feet, the table has rock-like stability. When folded, it has all the easy portability you have come to expect from Smith System roll-away equipment.

Just a final word about Lok-Steady leg construction: It is exceedingly simple, requires no maintenance of any kind, and is entirely automatic. And both the folding and unfolding can be handled by students because we have also incorporated powerful torsion bars into the folding mechanism.

These tables are finished with beautiful plastic tops and bright-plated metal parts, for a lifetime of satisfactory use.

Yet, I am happy to report, Smith System benchless roll-away folding tables are a most economical purchase. Economical in terms of first cost, and in terms of useful life. When you compare them to any others now available, you will find that you simply cannot make a wiser choice.

If you would like additional information about these remarkable new tables, we will be pleased to have a representative call—or send you literature. Of course there is absolutely no obligation. Why not write us today!

UNIFRAME construction uses techniques developed in aircraft manufacture. With it, working surfaces of tables, etc., are not used for structural support – the welded tubular steel frame will actually stand by itself! This means the frame absorbs stresses, does not transmit them to points of attachment. Insures longer table life, more stability in use.

Yours sincerely,
Newell V. Risdall, *Sales Manager*

Smith System

MANUFACTURING COMPANY

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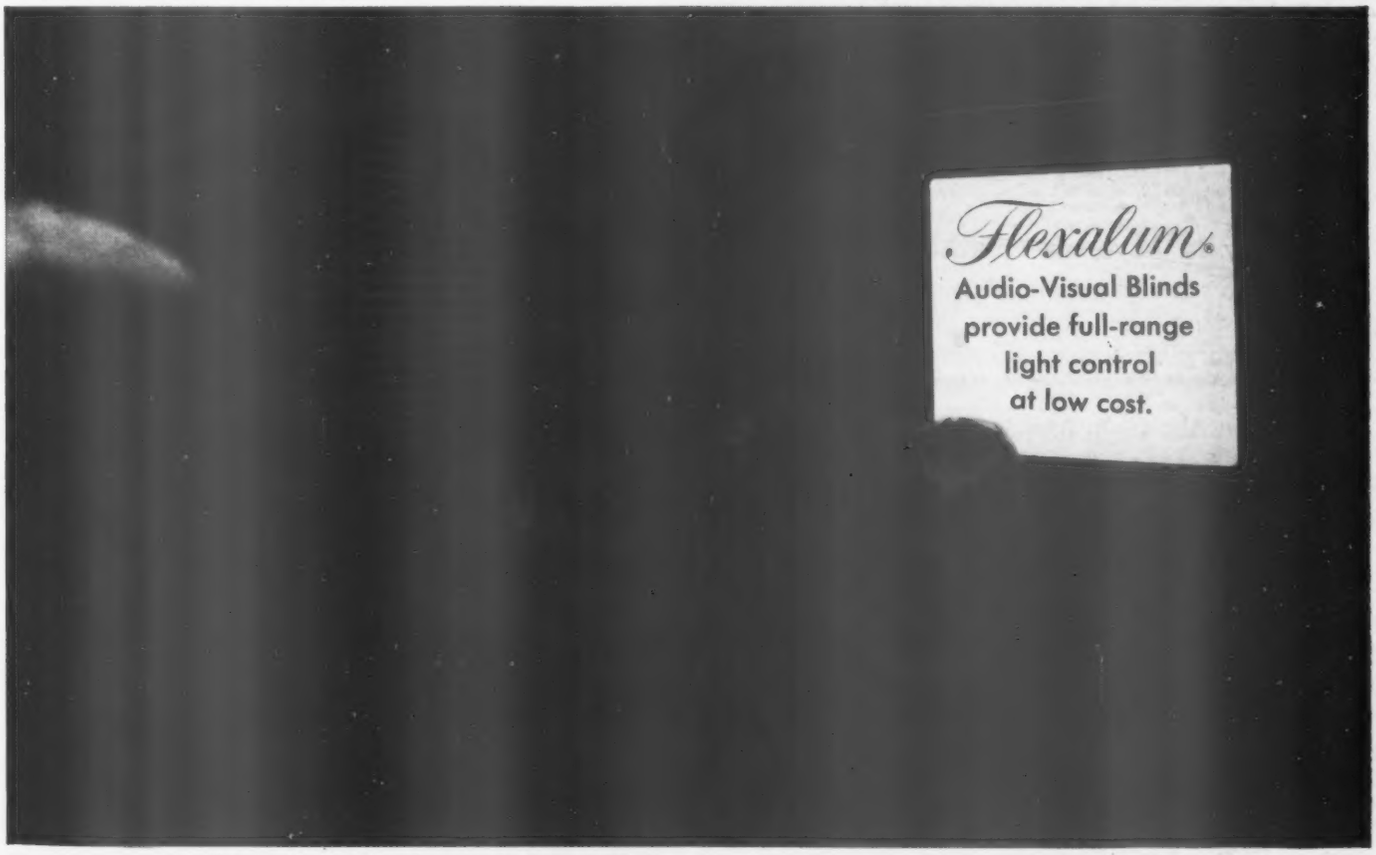
Minneapolis 14, Minnesota

(Circle number 741 for more information)

LIGHT Flexalum Audio-Visual Blinds, with slats open, provide controlled daylight without glare, plus ventilation, for ordinary classroom activities. The soft, diffused light is easy on the eyes . . . and dispositions.

MEDIUM Slats partially closed, give light enough for note-taking, yet darken room so projected slides of charts, etc., may be clearly viewed. Precision tilt mechanism with fine adjustment, affords exact degree of light needed.



DARK Completely closed Flexalum Audio-Visual Blinds give projection-room darkness. No light seeps in, thanks to light trap channels, and Flexalum's tighter overlapping slats. Projections of fine line drawings, microscopic slides, colored maps, etc., show up sharply on screen. All Flexalum Audio-Visual Blinds are fully guaranteed for five years, in writing.

Write for specifications to Bridgeport Brass Co., Hunter Douglas Division, 30 Grand Street, Bridgeport 2, Conn.

(Circle number 707 for more information)

SCHOOL MANAGEMENT

June 1961

Features

How to make your vocational training program pay off 44

Citizens' advisory groups are often a mixed blessing, but in vocational training they can be a tremendous source of help. Here's how to make effective use of them.

A schoolman's guide to language laboratories 49

Planned or unplanned, schools are installing language labs at a furious pace. This article tells you how to plan what you'll need, and how and when to buy your equipment.

How they handle merit pay—three case studies 54

If your district is thinking of incentive pay for teachers, watch out for booby-traps. Here, three experienced superintendents tell why their merit plans did, or did not, work.

How to double or triple your reading speed 58

Need more time to get things done? Here's the second of three 'lessons' explaining how you can break inefficient reading habits and cut your reading time in half.

A new way to plot your bus routes 61

A bird's eye view of this district in Highland Park, Ill., established student eligibility for bus service, and helped solve a tough transportation problem.

How to have air conditioning—and windows, too 75

Schools can have air conditioning and windows, and still save on costs. Here's how schoolmen in Vicksburg, Mich., achieved this ideal situation in their new junior high school.

Editor: Paul Abramson; **Associate Editor:** Bernard E. Weiss; **Art Director:** Laurence Lustig; **Production Manager:** Virginia E. Ray; **Art Production Manager:** Joan Longnecker; **Copy Editor:** Mary Kring; **Production Assistant:** Elaine Lesta; **Associates:** Dr. Orlando F. Furno, *Educational Research;* Richard Flambert, *Food Service;* Dr. Stephen F. Roach, *School Law;* **Circulation:** James Vinisko, *Supervisor;* Marie LaGuardia.

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VOL. 5 NO. 6

Short Reports

District organization 16
Do small districts assure better local control?

Personnel 64
How to take the guesswork out of hiring teachers.

Administration 68
How to reduce absences among student auto owners.

Departments

Letters to the editor 4
Yours for the asking 8
School law 12
Where to get help 27
News of the schools 39
Press releases 102
Reader service section 108

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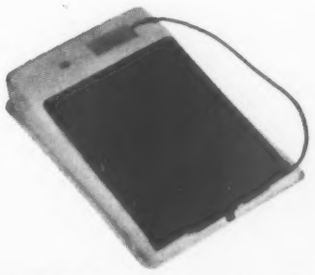
Teachers' time is your school's most precious commodity. Can you afford to waste it?

STAR scoring and teaching aid frees teachers from the task of hand scoring the multitude of objective tests used in modern schools. Your teachers will have more time and energy to devote to teaching and preparation of lessons.

Each student records his answer on his STAR; the score is instantly registered in the machine's counters. Primarily a testing device, STAR may be used as a teaching aid using the feedback or reinforcement of learning principle.

Low-cost STAR tests and teaches programs selected and developed by your own teachers. No expensive programming of course material is required.

Developed by HRB-Singer research scientists in cooperation with psychologists and guidance counselors, STAR offers the following features:



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3. **Uses teacher's own tests—or is easily adapted to standard tests.**
4. **Is low in cost, flexible, reliable and durable.**

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[redacted]

A sampling of correspondence across the editor's desk

Contrary to all principles

SIR: The use of standardized tests to rate teachers and to determine tenure (*see "Are you getting maximum mileage from your testing program," SM, April '61*) is contrary to all principles of evaluation. Further attempts at correlating the IQ measurements of one test company with the achievement test battery of another company displays a juggling of statistics, and an almost comical "objective interpretation for evaluation."

This would be humorous except for the serious effect on teachers. Coaching of classes, teaching to tests, and cut-throat competition inevitably would follow. Instead of a tool to help the teacher, the test would become an administrative device to be feared. This is crediting tests with an accuracy and reliability beyond anything known thus far.

Our local teachers anticipate tests as measuring instruments to find how they and their students are doing. They enthusiastically participate together in the sessions, and the teachers in the following interpretations, because the teachers are partners in testing, not the objects of scrutiny. Tests used in this manner are a positive addition to teaching, freed from the suspicion of an administrative tool used to determine hiring and firing.

ROBERT E. BARRY, DIRECTOR
PUPIL PERSONNEL SERVICES
SANTA BARBARA, CALIF.

Rating teachers

SIR: Dr. Whilt's article presents tests and certain uses of tests as offering answers to questions about evaluating teaching, teacher tenure, and rating an entire instructional program. For fear that the answers may seem entirely too "pat" to readers who, the author feels, must be told how to calculate IQ's, may I suggest that a standardized testing program does not provide all the tools you need.

In the effort to get "mileage" from a testing program don't stop the speedometer by ranking the teacher. Why not rank the supervisor, the superintendent, the principal, the school board, the community, and all the environmental factors that impinge upon the teaching-learning situation? Also, what about all of those splendid facilities which are sold by your advertisers? Does their presence or absence make a difference?

GUY A. CURRY, JR.
ASSOCIATE SECRETARY
NATIONAL COMMISSION ON
TEACHER EDUCATION AND
PROFESSIONAL STANDARDS
WASHINGTON, D.C.

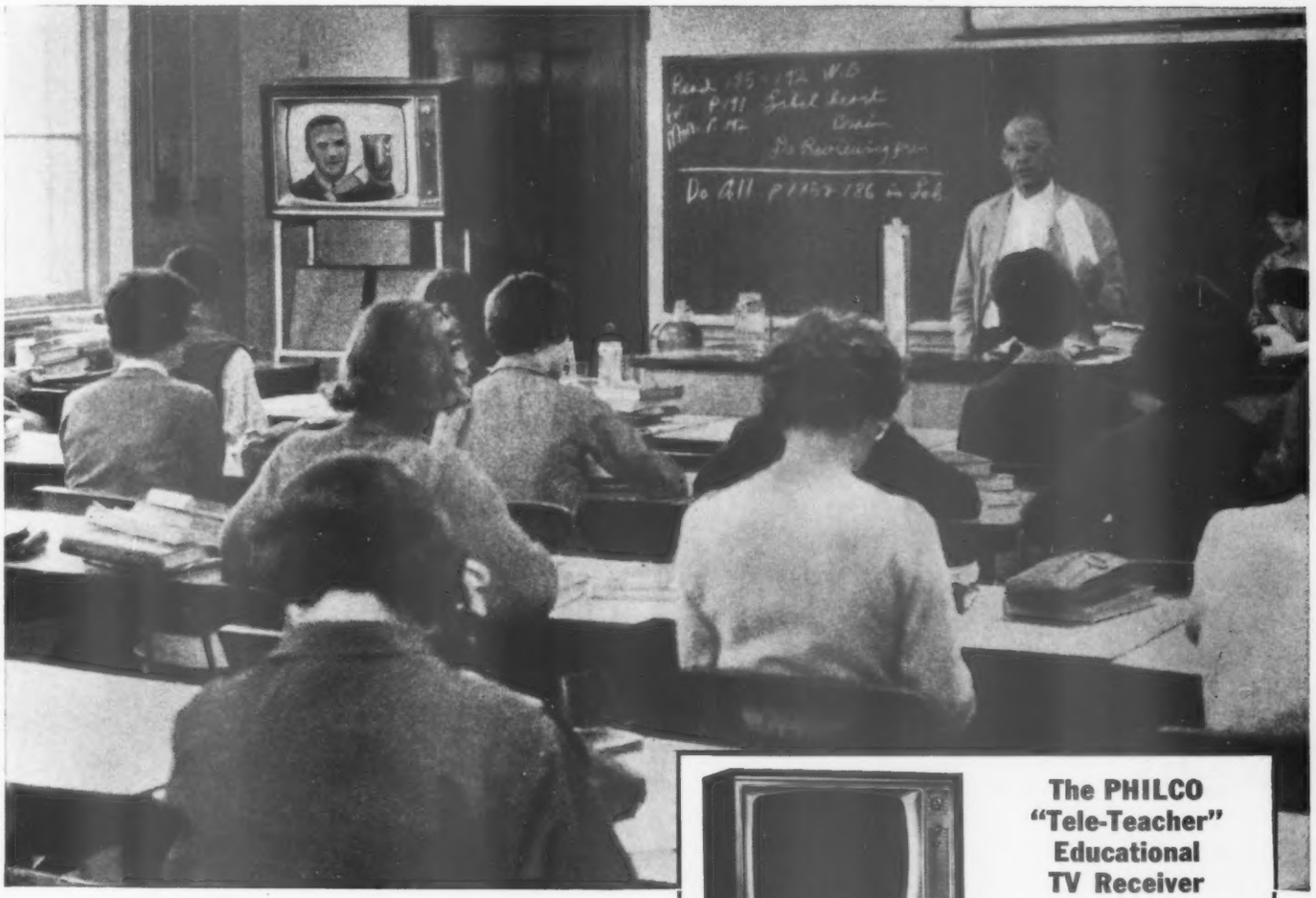
Don't stop

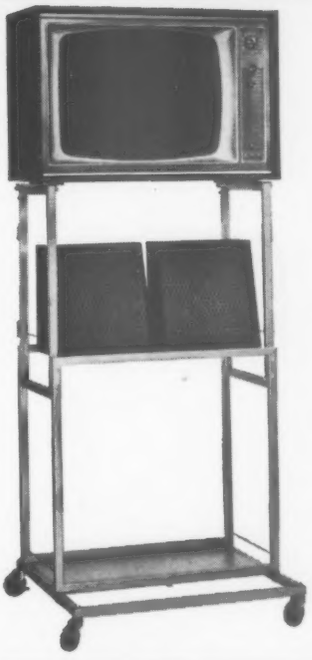
SIR: From the very first issue of SCHOOL MANAGEMENT I have received a copy. Suddenly they've stopped and I miss them. Perhaps I should have written sooner to tell you what an immense help the magazine has been to me and the Stockbridge, Mass., School Committee on which I've been proud to serve since 1948. I have just been re-elected chairman and I can think of no better single source of help for the committee than your magazine. Would it be possible to put me back on your mailing list?

MRS. JOHN HEATHER, CHAIRMAN
STOCKBRIDGE SCHOOL COMMITTEE
STOCKBRIDGE, MASS.

■ SCHOOL MANAGEMENT *is sent, on a complimentary basis, to the superintendent and the school board chairman (and the business manager if there is one) in all public school districts with 300 or more students enrolled. Some larger districts are allotted additional complimentary copies. Other members of the staff or the school board are offered a reduced group rate. The normal subscription price is $8 per year. Group subscriptions are delivered individually, but the rate drops to $4 each for six or more subscriptions. Each year,* SCHOOL MANAGEMENT *contacts the school district to "verify" the status of staff members presently receiving the magazine. When we are notified of a change in personnel, we re-direct* SCHOOL MANAGEMENT *accordingly. If no change is reported, we take no action. It therefore becomes most important for each district to complete and return its "complimentary subscription renewal" form promptly. Mrs. Heather, as chairman of the Stockbridge School Committee, is once again receiving* SCHOOL MANAGEMENT *on a complimentary basis.*

NEW! PHILCO "Tele-Teacher" Educational Television Receiving System





The PHILCO "Tele-Teacher" Educational TV Receiver

- All-front tuning. Controls are easy to reach at any height. Push-pull on-off switch for permanent volume adjustment. Out-front speaker for best sound projection.
- 23" screen for easy viewing in any size room. 282 sq. in. viewable area. No-glare, anti-reflection frosted C.R. tube.
- 2 plug-in 8" extension speakers with 50 ft. cords for use anywhere in room.
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- Underwriters' Laboratories Approved.

AUDIO CONTROL PANEL in back of set

Includes Audio Limiter, external speaker jacks, plus provision for phono and tape-recording of TV programs or play back through TV sound system.

Finest way to bring audio-visual educational aids to your school!

Designed and engineered to meet the rigid specifications of the Midwest Program on Airborne Television Instruction, Philco "Tele-Teacher" educational TV is more than just a receiver on a Mobile stand. It is a *completely integrated receiving system*, including antennas, converters, distribution equipment, plus the exclusive Philco "Tele-Teacher" classroom receivers. The fact that every component is exactly matched assures finest clarity of sight and sound . . . the utmost in flexibility and versatility.

The Philco "Tele-Teacher" system is designed to bring you the finest Educational and Program TV Reception whether it be ground, closed circuit *or* airborne transmission. Send coupon for complete information and specifications.

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Philadelphia 34, Pa.

Please send me full information concerning the Philco "Tele-Teacher" Educational TV Receiving System.

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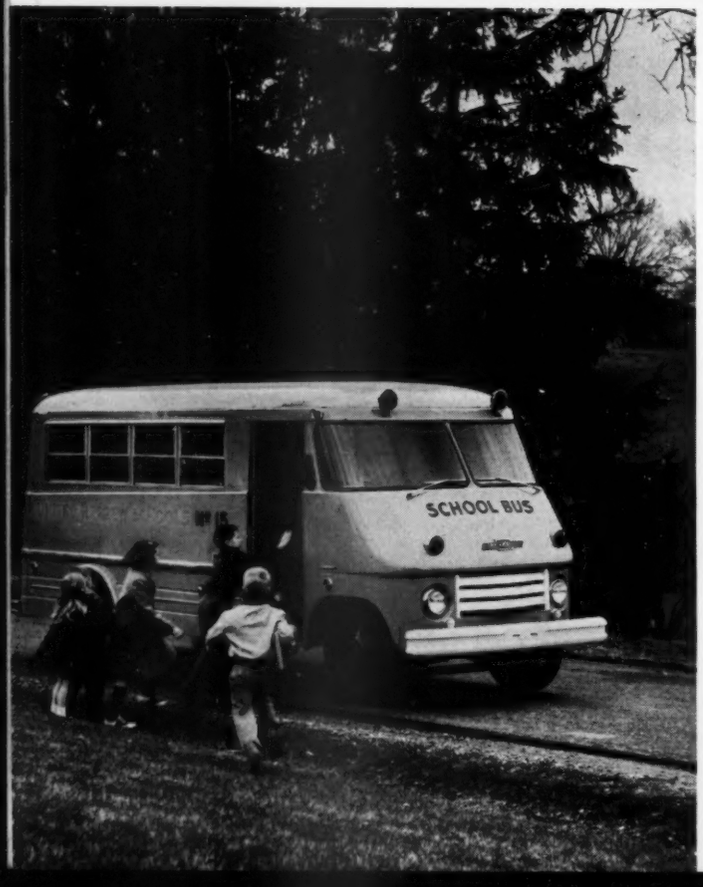
(Circle number 764 for more information)

SCHOOL BUS
CHEVROLET
60

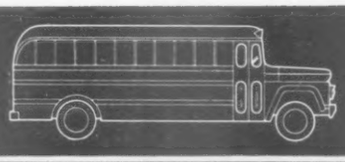

SCHOOL BUS

SCHOOL BUS
27
CHEVROLET

BEST IN BUSES ACROSS THE BOARD

Tough school bus schedules come easy with Chevrolet in the picture, and tight budgets look better than ever. Every requirement from 8 to 66 passengers can be met at maximum efficiency, with a Chevy model made-to-measure for the job. When you plan your transportation operations around Chevrolet, you can match your route and schedule needs to a "T", so that every seat, every pound, every chassis and body dollar works for you every day. And the way these Chevies work means unsurpassed savings right down the line, from low first cost and fuel consumption to minimum upkeep, longer life and less actual depreciation. Get the full details and you'll go Chevrolet when new equipment time comes around again. . . . Chevrolet Division of General Motors, Detroit 2, Michigan.

CONVENTIONAL CHASSIS



MODEL	PUPIL CAPACITY	WHEELBASE	MAX. GVW
S5302	30 to 36	157"	16,000 lb.
S6202	42 to 48	197"	21,000 lb.
S6402	48 to 54	225½"	21,000 lb.
S6702	54 to 60	243"	21,000 lb.
S7702	54 to 60	243"	23,000 lb.
S7902	60 to 66	261½"	23,000 lb.

STEP-VAN BUS

MODEL	PUPIL CAPACITY	WHEELBASE	MAX. GVW
P2545	12 to 16	125"	7,000 lb.
P2645	15 to 20	137"	7,000 lb.
P3545	12 to 16	125"	10,000 lb.
P3645	15 to 20	137"	10,000 lb.

SUBURBAN CARRYALL

MODEL	PUPIL CAPACITY	WHEELBASE	MAX. GVW
C1406 (Panel doors)	8 to 12	115"	5,200 lb.
C1416 (Tailgate)	8 to 12	115"	5,200 lb.

CONVENTIONAL SCHOOL BUS CHASSIS—Six chassis-cowl models on five wheelbases and in three weight classes bracket the bus field for from 30 to 66 passengers, with a wide choice of made-to-fit bodies available from leading manufacturers everywhere. All can be fully equipped to meet basic national school bus standards and a wide variety of low-cost factory-installed special equipment is available to meet virtually any special local regulations. The power lineup, from the 235-cubic-inch Thriftmaster 6 to the 348-cubic-inch Workmaster Special V8, is tailored to exemplify the economy, performance and thrift that have made Chevrolet the acknowledged industry leader in high-efficiency engine design. All conventional models feature independent front and variable-rate rear suspension systems for smooth ride, safe, sure handling, and longer body and chassis life.

STEP-VAN BUS MODELS—For limited routes, private school day students, athletic team or band transportation and many other special requirements, here's the answer to the tightest operating budget. You can choose from four fully equipped bus models based on Chevrolet's popular multi-stop Step-Vans, known far and wide for their diehard durability and exceptional operating economy. Three seating arrangements are available in each of two body sizes, offering transportation tailor-made for from 12 to 20 passengers.

CARRYALL MODELS—Here are small-route buses or equipment carriers with unlimited versatility in two Chevrolet Carryall models designed to tackle just about any job that comes up. You can choose between horizontal-opening panel-type rear doors or station-wagon-type lift- and tailgates, as you prefer. Second and third seats can be removed or rearranged, in next to no time, to accommodate a wide variety of passenger and equipment loading requirements. The basic Carryall seats eight and can be factory-equipped to meet just about any special school bus regulation. In addition, fully equipped school bus conversions for up to 12 passengers are available through leading special equipment suppliers.

THE VALUE BUY IN SCHOOL TRANSPORTATION

CHEVROLET

(Circle number 709 for more information)

YOURS FOR THE ASKING

This material—promotional and otherwise—contains ideas of possible value to you and your schools. Each item listed will be sent to you without cost.

FOR FREE COPIES, USE READER SERVICE CARD

Safety in driver training. The Travelers Insurance Co. has published a booklet of highway accident data which dramatically tells students the hazards of negligent and careless driving. The booklet breaks down accident data by type of accident, action taken by driver resulting in accident, action of pedestrian, age and operating experience of driver, type of vehicle, condition of vehicle, weather and road conditions, day and hour of occurrence, and direction of travel. Each table of data is illustrated with a safe driving cartoon.

For a free copy of "Deadly Reckoning," circle number 892 on the Reader Service Card.

Equipping a lab? Laboratory Furniture, Inc. has announced a series of practical working tables for physical science labs. Using these tables, students do not directly face each other, yet each student has a working area 30 inches wide by 18 inches deep, and access to centrally located fixtures and services. A catalog describing these new tables is available.

For a free copy, circle number 889 on the Reader Service Card.

The story of glass. The Corning Glass Works has published a 68-page booklet which reviews the history of glass, details the basic types, and explains how it is used in science, industry, the home, etc. There is a two-page chart listing the properties of selected glasses and glass-ceramics, and a chapter on the contribution of glass to art. Illustrated.

For a free copy, circle number 876 on the Reader Service Card.

How to produce a school newspaper. Everything from writing an article to the job of the school paper's circulation manager is discussed in this booklet being made available by Ditto, Inc. The booklet explains how duplicating equipment can reduce the cost of publishing the paper, and gives helpful hints for the faculty advisor as well as the student staff.

For a free copy of "Guide to publishing a school newspaper," circle number 902 on the Reader Service Card.

How to maintain tile floors. Programed care on a regular schedule is the way to keep large floor areas in good condition and the cost of maintenance down, according to this folder from the Asphalt and Vinyl Asbestos Tile Institute. The folder describes the essential steps of proper maintenance and tells how to protect various floor areas. Cautions about use of improper products are also included.

For a free copy, circle number 878 on the Reader Service Card.

To explain mathematics. Forty-seven clear plastic three-dimensional mathematics models are illustrated and described in this catalog published by the Lapine Scientific Co. These models (cones, cubes, spheres, etc.) can be used to demonstrate concepts of plane, solid and analytical geometry, and related branches of mathematics and mechanical drawing. Most of the models are colored, and some have darkened edges or seams to accentuate a feature.

For a free copy of the catalog, circle number 900 on the Reader Service Card.

Dries overnight. The Garland Co. is distributing a bulletin which describes a liquid floor coating which dries overnight to form a tough, easy-to-clean surface. The coating can be poured directly on a concrete floor, then brushed. It fills small holes and cracks, and prevents spalling. According to the bulletin, the coating is equal to 15 or 20 coats of paint.

For a free copy, circle number 825 on the Reader Service Card.

Washroom designs. A four-page brochure, titled "New Directions in Contemporary Washroom Design," is now available from the Bradley Washfountain Co. Included in the brochure are descriptions, pictures, and dimensions of washfountains and group shower equipment. There is also a composite tabulation of minimum practical clearances for group washfountain equipment.

For a free copy of this brochure, circle number 884 on the Reader Service Card.

Structural clay products. Of particular interest to architects, this catalog published by the Natco Corp. lists a complete line of structural clay products for interior and exterior uses. The building materials, designed in many shapes, textures and colors, are described in full and illustrated. The 24-page catalog also features other clay masonry units such as glazed and unglazed facing bricks, sewer pipe, underdrains, solar screens, etc.

For a free copy of this catalog, circle number 870 on the Reader Service Card.

Catalog of film strips. The Society for Visual Education, Inc., is distributing its 1961 catalog of filmstrips for all educational levels. The catalog includes a system for administering your filmstrip library, and includes many films available for purchase under NDEA, Title III. For grades K-6, there are filmstrips on science, reading, foreign languages, arithmetic, language skills, social studies, health and safety. For grades 7-12, there are filmstrips on languages, mathematics,

continued on page 100

Captain Robert F. C. Winger
Asst. Professor of Spanish
United States Air Force Academy

Battles Can be Won In the Classroom, too...

Success in the conquest of space, like success in surmounting language barriers, starts in the classroom.

At the United States Air Force Academy in Colorado Springs, the LinguaTRAINER, an electronic language laboratory system, is helping the Foreign Language Department carry out important instructional assignments.

The outstanding flexibility of the LinguaTRAINER allows instructors the widest possible freedom in programming their courses as well as in teaching. Instruction can be carried on in a wide variety of subjects simultaneously to individuals, groups, or classes.

Neither time nor attention is wasted by teacher or student in adjusting equipment. The LinguaTRAINER is controlled by simple switches and channel selectors; it's as easy as turning on your TV. The instructor's mechanical duties are minimum, and are centralized at the Teacher's Console. There's no distracting operation of any sort at the student position . . . simply an on-off switch, nothing more. Individual tape recorders and all electronics are housed in a Remote Control Cabinet.

LinguaTRAINER is the first remote control language laboratory system used extensively in schools and colleges. Nearly two years of successful on-the-job operation attest to the excellent quality and workmanship of all components.

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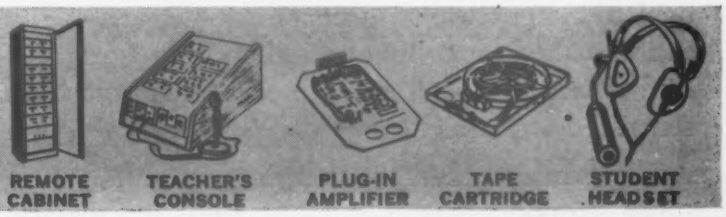

(Circle number 739 for more information)

The new Valley Forge High School, Parma Heights, Ohio, will have 105,000 square feet of Armstrong Acoustical Fire Guard ceilings.

Superintendent of Schools for Parma: Paul W. Briggs
Architect: Fulton, Dela Motte, Larson, Nassau & Associates, Cleveland
General Contractor: H. J. Forepaugh and Son, Bedford, Ohio
Acoustical Contractor: The Gellin Company, Cleveland

This school saved $56,000 by installing ceilings of Armstrong Acoustical Fire Guard

Acoustical Fire Guard tile saved Valley Forge High School 53¢ a square foot, in addition to providing excellent acoustical qualities and fire-retardant ceilings.

It's an unusual occurrence today when your construction costs go down—instead of up. But that's what happened at the beautiful new Valley Forge High School in Parma Heights, Ohio. Here's the complete story.

Before construction started, a ceiling had to be found that would meet the two-hour rating required by the Ohio fire code. Acoustical treatment was also necessary. Specifications called for ceilings of either Acoustical Fire Guard or an alternative of mineral tile cemented to plaster.

The firm awarded the contract submitted a bid showing that Acoustical Fire Guard would cost $56,069 less than the alternate. The result was selection of Fire Guard for 105,000 square feet of fire-retardant ceilings, at a saving of 53¢ per square foot. When you consider that the entire general contract came to $2,848,848, this is a significant saving.

Like many schools, Valley Forge High School desired noise-quieting acoustical ceilings. While ordinary mineral tile can provide acoustical qualities, code restrictions often require the installation of intermediate fire protection above the tile.

That's why the development of Acoustical Fire Guard is so significant—especially for schools. Both acoustical and fire-retardant

qualities are built right into Fire Guard. Your school is saved extra labor and material expense, because the "intermediate ceiling" is eliminated and construction time cut.

As the first acoustical ceiling tile to be given time-design ratings by Underwriters' Laboratories, Inc., Acoustical Fire Guard effectively checks the spread of fire. Its capacity to resist flames and retard the passage of structure-damaging heat—for up to four hours—means excellent protection and safety for your school.

In the last five years, there has been an average of twelve major school fires each day, resulting in a daily average property loss of $73,000. While Acoustical Fire Guard won't prevent fire, it will contain it—an important factor where school property loss is concerned.

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the acoustical contractor. Installation can be done during or between school hours, making it ideal for remodeling jobs.

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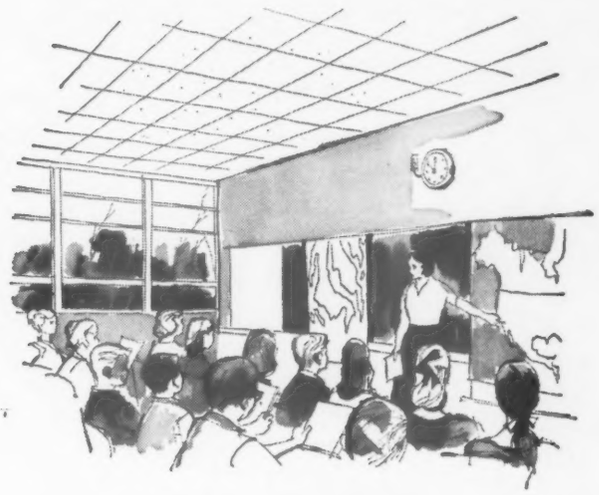
To beautify while it protects, Acoustical Fire Guard is available in three designs: the popular Classic, Full Random, and Fissured, the distinctive style selected for Valley Forge High School.

For more information, consult your archi-



tect or your Armstrong acoustical contractor (he's in the Yellow Pages under "Acoustical Ceilings"), or write Armstrong Cork Company, 4206 Ross Street, Lancaster, Pa.

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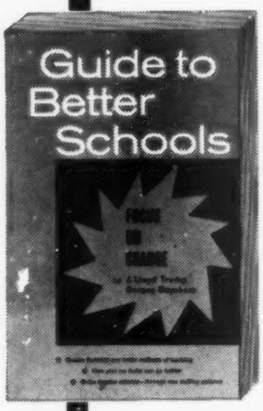

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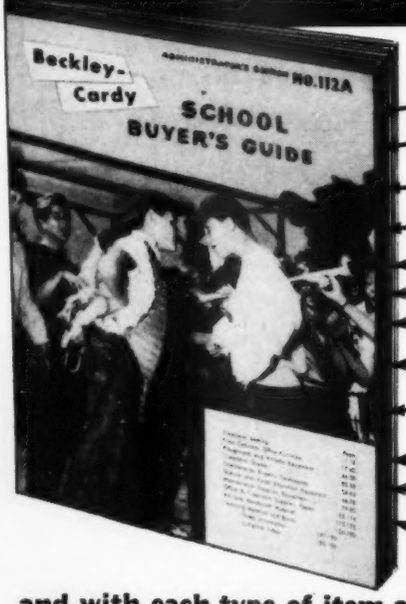

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SM SCHOOL LAW

By Dr. Stephen F. Roach

Errors on bids

Must such bids be rejected by the board?

The question: May the school board correct an obvious clerical error on a contractor's bid, and then treat the bid as valid?

The facts: On a proposed heating and ventilating job on its North Branch Parkway School, the Springfield, Mass., school building commission received bids from both the West Side Heating Co. and the McClean Heating and Supplies Co. The West Side bid ($92,200) was the lowest; that of McClean ($96,768) was second lowest.

The specifications required that, as "Alternate B," a price be submitted for the omission of certain work. Instead, West Side had submitted a deduction of $6,236 for "Alternate A"—another alternate, which applied only to electrical work and was to be an addition to (rather than a deduction from) the bid price. The West Side bid had then left blank the space (immediately below) for use for "Alternate B." McClean submitted a deduction of $7,100 for "Alternate B" and wrote "none" for "Alternate A."

The school building commission included the names of both West Side and McClean in the list of sub-bidders mailed to the prospective general contractors. The commission's list showed the West Side deduction as one for "Alternate B."

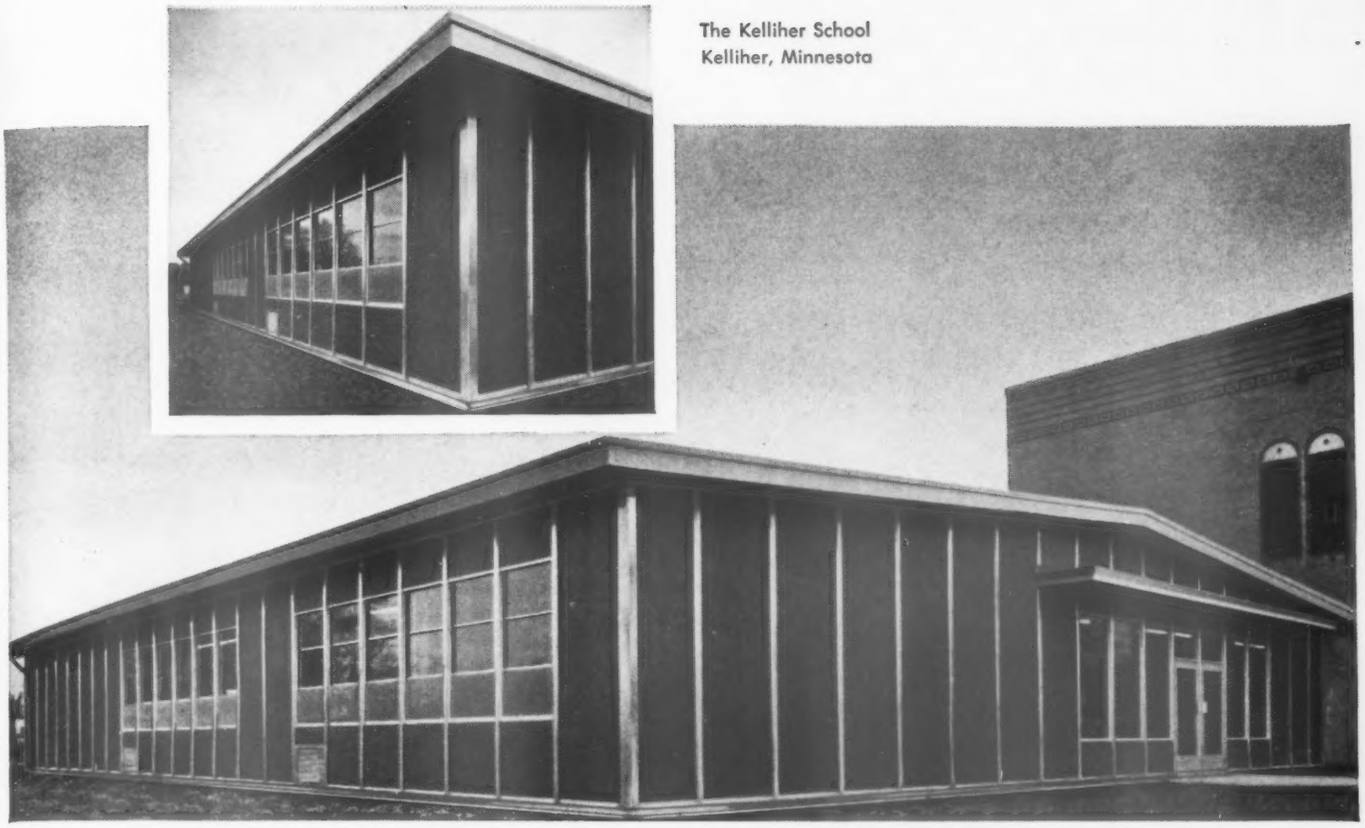
In this suit, McClean contended that the West Side sub-bid: **1**) was "incomplete" in having no figure for "Alternate B"; and **2**) contained an "uncalled for addition" by reason of the presence of the figure for "Alternate A." Applicable Massachusetts law required that any contract awarding authority was to reject every sub-bid which was "incomplete . . . or which contains any addition not called for."

The ruling: The action of the school building commission, in treating the West Side bid as valid—even though it contained the error described—was upheld.

In rejecting McClean's contentions, the court said: "There was an obvious clerical error which deceived no one. As 'Alternate A' has no application to the heating and ventilating subcontract, and was intended as an addition to another subcontract, the submission of a deduction for it was meaningless. With the space left blank opposite 'Alternate B' the

About the author

Dr. Stephen F. Roach is editor of the *Eastern School Law Review* and is an assistant principal for the Jersey City, N.J., schools.



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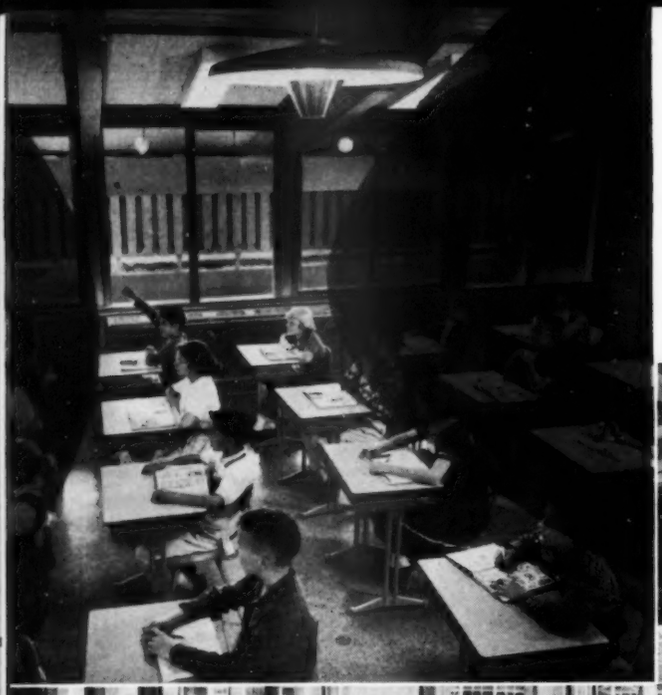

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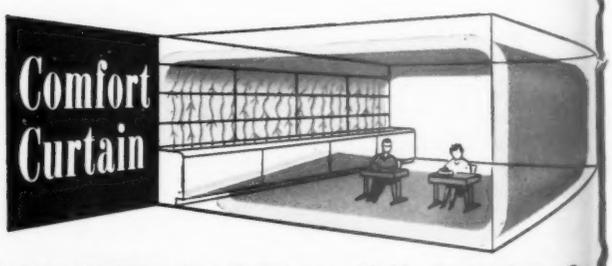

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figure submitted as a deduction was reasonably understood to have been for that alternate which was alone pertinent."

Then the opinion went on: "The legislative intent to protect the public does not require that [the applicable statute] be given the harsh and unreasonable construction . . . to strike down the West Side sub-bid."

McClean v. *School Bldg. Comm. of Springfield. In Supreme Judicial Court of Massachusetts; decided Nov. 4, 1960; cited as 169 N.E.2d 741.*

Released-time programs

Constitutional in principle; not in practice

The question: Are there constitutional limitations to the extent a public school system may "facilitate" the registration of pupils for a released-time program?

The facts: Since 1938, the board of School District No. 81 in Spokane (Wash.) had authorized the release of public school children for one hour per week for religious instruction upon written request of parents.

The released-time program was administered as follows: Early in the year, children at the individual schools were given cards upon which their parents could indicate a desire to have their children attend the religious instruction. Depending upon the preference of the school principal involved, the cards were distributed to the students either by a representative of the sponsoring religious group or by the individual classroom instructors, who would also, at that time, make announcements concerning the program. The children whose parents so desired were released for off-school religious instruction at no public expense. The remainder of the children were kept at school.

Suit was brought contesting the program.

The ruling: The court said: "It is safe to say that a released-time program in itself [is not] in contravention of the doctrine of separation of church and state, nor of any statement of federal constitutional provisions; it is only the manner in which it is practiced that constituted a violation."

In its analysis of the Spokane procedures the court alluded to the board's practice of permitting either representatives of the religious groups, or school instructors, to distribute the registration cards and make announcements relative to the program on the school premises. This, it held was *"a use* of school facilities supported by public funds for the promotion of a religious program," contrary to the state constitution.

In addition, this practice "has the further *effect of influencing* the pupils, while assembled in the classrooms, as a 'captive audience' to participate in a religious program." This is contrary to the constitution.

The opinion then concluded; "It was never the intention that [the] constitution should be construed in any manner indicating any hostility toward religion. Instead, the safeguards and limitations were for the preservation of those rights. No limitations of the constitution [are] contravened by [a] . . . school district permitting a released-time program in its schools, if practiced in a [constitutional] manner.

Perry et al v. *School Dist. No. 81, Spokane et al. In Washington Supreme Court; decided Oct. 8, 1959; cited as 344 P. 2d 1036, 54 Wash. 2d 886.*

Basic information that schoolmen can use as part of a community education program

Do small districts assure better local control?

Once they were 'typically American' but today they're a headache. Lack of programs, costs, and fears of reorganization plague one and all. What has happened, and why? Here is a look at this perplexing problem.

■ ■ ■ How good are small school districts? There's a romantic notion that they provide greater local control; that they have better, more personalized instruction; that they are able to keep tax costs down because they don't need the greater administrative hierarchy found in the larger districts.

But is this all true?

A recent study published by the University of California indicates that just the opposite may be true.* Using state and federal figures, and their own research questionnaires, Authors Edgar L. Morphet and John G. Ross found that:

Small districts do *not* really have local autonomy, but, instead, depend on help from county and state offices. And they let the "higher ups" do most of their thinking and planning.

Morphet and Ross conducted a survey of all districts in California with the aid of Vincent E. Merritt, administrative assistant in Sacramento County, Calif. Questionnaires were sent to all county superintendents with small districts, and to a sample of school board members and administrators in those districts. For purposes of this study, a high school district was considered small if it had fewer than 300 students. Elementary school districts were small if they had no more than 900 students and unified districts had to top 1,500 students to climb out of the "small" classification.

Here's a point-by-point breakdown of the arguments for small districts, and the answers as supplied by the authors.

The claim: *Small districts have a greater amount of local autonomy.*

The answer: *Small districts do not have more local control; actually, they have less. Local responsibility in small school districts really could be described as more fiction than fact. Here's why:*

1. Their boards of education are drawn from a smaller base—giving less opportunity to get high class people to serve voluntarily, or even willingly. School board spokesmen and administrators, answering a questionnaire, admitted that getting the best people on the board in a small district is an almost insurmountable problem. And, they added, citizens seldom attended any school meeting.

2. Small districts are less independent fiscally. Again, board members and local administrators admitted that budgetary control is in the hands of the county superintendent.

Nearly half of them stated that their county superintendent not only prepares their budgets but also does their financial accounting for them.

The county superintendents themselves, answering a similar questionnaire, claimed this figure is too low. Only 4.3% of the districts do their own budgeting and accounting, they said.

3. Small districts do not even plan their own educational programs. All respondents admitted, moreover, that they need help in such matters as budgets, legal questions and transportation. Thus they turn to "outsiders" for direction—to the county and the state.

Summing up, it is found that small schools have

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* *LOCAL RESPONSIBILITY FOR EDUCATION IN SMALL SCHOOL DISTRICTS, 1961 Legislative Problems No. 1, Bureau of Public Administration, University of California, Berkeley, January 1961, $2.*

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less local autonomy because they are more dependent upon others for help in so much of their day-to-day activities.

The claim: *Small districts give more personalized instruction.*

The answer: *It isn't* who *you know, but* what *you know that counts. When it comes to teaching, no one questions the value of individual help and instruction by an informed teacher but the study shows that small districts can neither get nor hold outstanding instructors.*

1. Morphet and Ross found that teachers in small districts usually are poorly trained and poorly paid. The better teachers tend to migrate to larger districts which have a better salary range and improved programs.

2. Few small districts, the county superintendents said, have systematic programs for teacher recruitment, selection, evaluation or in-service improvement, or for developing or improving their curriculums.

3. Too-small classes, all those surveyed agreed, hamper good educational programs. Equipment and supplies are below par. The administrator usually is a teaching principal and sole district supervisor who has little time, or even ability, for a "double operation." Hence administrative services and procedures are largely omitted.

Although more than two-thirds of the small districts surveyed consider interviewing teacher candidates one of their chief functions, more than half of the boards leave teacher evaluation in the hands of the county superintendent, not the district administrator.

Summing up, small districts have no means to recruit, train or retain superior teachers. Moreover, working on a smaller tax base, they generally cannot afford to pay as much as larger neighboring districts.

The claim: *In small districts, the price is right.*

The answer: *Oh no it's not! You pay for what you get. Costs for smaller schools and districts are found to be higher, not lower, than in the larger districts. Even per pupil costs are greater.* In the state of Washington, for instance, grade schools with less than 50 pupils cost 60% more to operate than those with 150-300 pupils. In California, the elementary districts which are smaller spend up to 30% more per pupil; the same is true for high schools with less than 600 students. SCHOOL MANAGEMENT's Cost of Education Index graphically depicts the plight of the smaller districts. They pay less per student for instruction, teacher salaries and teaching materials, but more for administration and transportation than the national average.

The ideal school size for cost, the authors find, averages around 600 pupils in grade school, 500 in junior high school, and 600-800 in senior high school. The smaller the school, they say, the greater the cost of providing a satisfactory program. The lowest possible

continued on page 22

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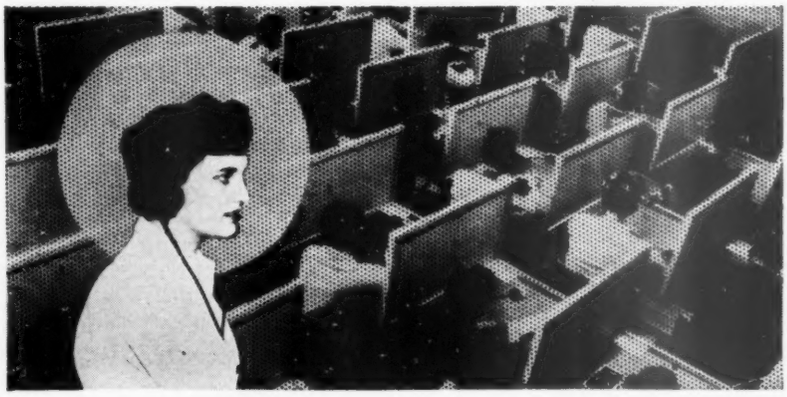

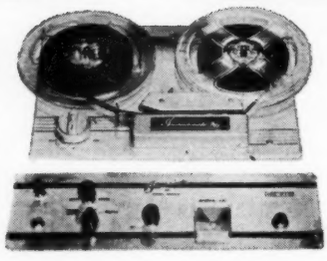

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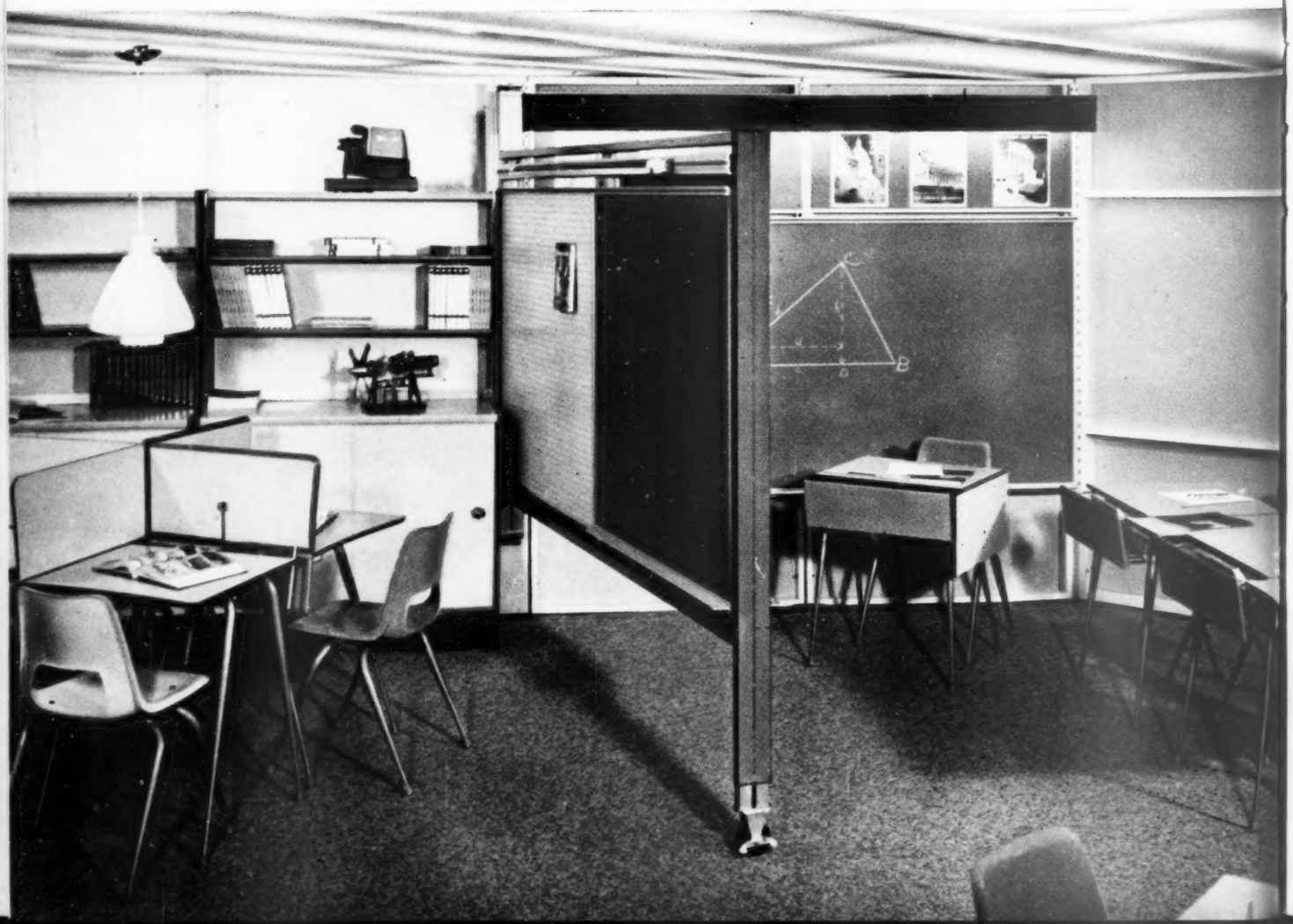

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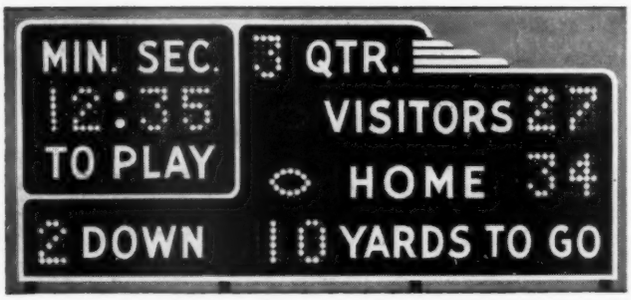

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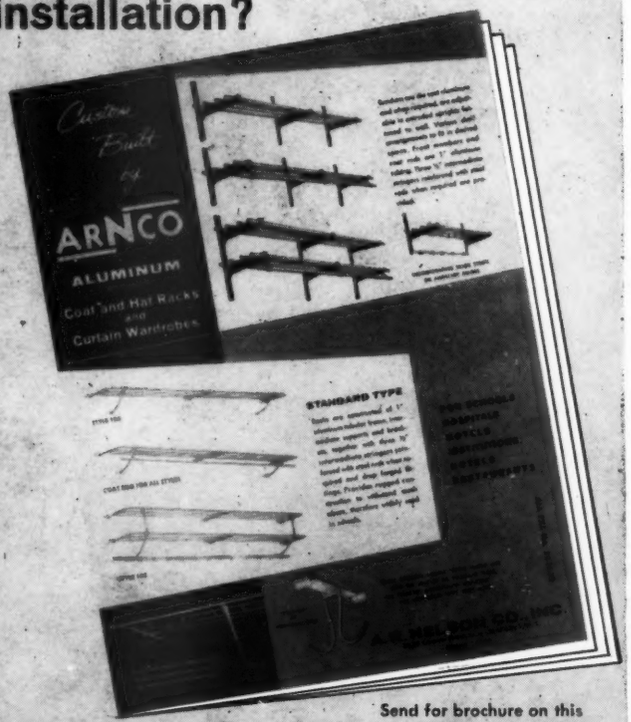

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cost, they say, is in district systems of more than 10,000 students.

Boon or bane?

Conclusions as to the present day value or disservice of small districts are now apparent, according to Morphet and Ross:

They seldom plan or carry through projects or policies. They cost more to run, but can't provide adequate educational programs or opportunities by themselves. They are uneconomical, inefficient and lack required day-to-day services.

"Less *bona fide* responsibility has been exercised" in the small districts, the authors claim, and "local responsibility and control are not as complete or as vigorous as has often been assumed.

"If the people want local initiative and responsibility for schools, they can have it. Potentially, it can be much more effective and meaningful in reorganized districts. It is (then) possible for local control to become fact rather than fiction." **End**

How much do small districts cost?

ELEMENTARY DISTRICTS

Size (ADA)	No. of districts	Average costs
Under 10	36	$941
10-49	319	478
50-99	195	398
100-249	216	351
250-499	189	319
500-999	144	308
1,000-4,999	220	320
5,000 & over	54	329
State average		**$326**

HIGH SCHOOL DISTRICTS

Size (ADA)	No. of districts	Average costs
Under 100	9	$992
100-199	23	712
200-399	29	556
400-599	28	598
600-999	33	514
1,000-2,999	60	501
3,000 & over	47	481
State average		**$490**

UNIFIED DISTRICTS

Size (ADA)	No. of districts	Average costs
Under 100	1	$832
100-499	9	522
500-999	15	463
1,000-1,999	23	416
2,000-3,999	19	415
4,000-9,999	14	406
10,000 & over	22	390
State average		**$396**

the inside story on property protection from a school management point of view... save your school system money and trouble by passing this advertisement along to the man who buys fence

TURN THE PAGE ➡

continued from preceding page

It may take 10 years to find out if you bought a good fence. Buying chain link fence is a lot like buying carpeting: it takes years of wear and tear—usually about 10—before you know if you've made a good buy. At the time of purchase, only an expertly informed buyer can tell. The following discussion of fence is intended to give you pertinent information and a supply of pointed questions to ask a supplier the next time you have to buy property protection fence.

FIG. 1: Galv-After process, developed by Cyclone, assures uniform zinc coating over Cyclone Fence fabric. No uncoated ends or bends to invite corrosion.

fence uniformly galvanized?

Some chain link fence is galvanized **before** weaving. Twisting, turning and bending by weaving machines may break the seal of zinc; leave uncoated ends to invite corrosion.

USS Cyclone Fence is galvanized after weaving. This Galv-After process, developed by Cyclone, means that none of the protective zinc is removed from Cyclone chain link after it leaves our hot-dip tanks. This adds years to fence life.

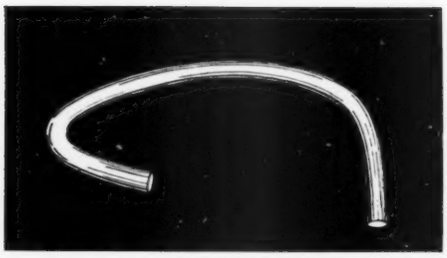

FIG. 2: Prefabricated clip — unique with Cyclone — makes a cleaner, tighter job, gets the fence up faster.

every part engineered to its job?

Fence can cost a sizable sum of money. You have a right to expect your investment to pay off in 20, 30 or more years of solid property protection with relatively little maintenance. This means you want a fence that's engineered to the job, not just a haphazard collection of pieces and parts.

Every part that goes into a USS Cyclone Fence is completely pre-engineered. The design, the weight, the mechanics are exactly right. Take the 4″ piece of wire we use to fasten fence fabric to line posts. It's about the smallest thing that goes into a Cyclone fence, yet we've gone to the trouble of pre-shaping it into a clip. The clip makes a cleaner, tighter job and helps us get your fence up faster. This can save you money.

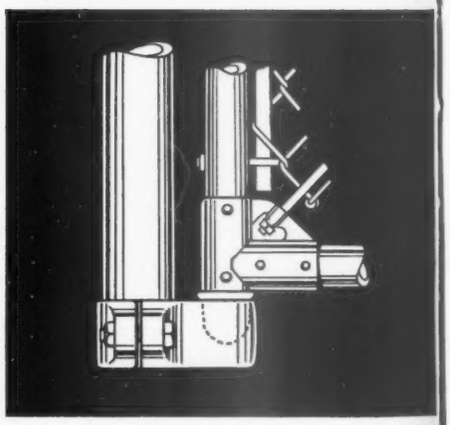

FIG. 3: Sleeve construction of USS Cyclone gate makes repairs easy. Remove a few rivets, insert a new part and you have a new gate.

gates easily repairable?

Most fence gates are welded. Smack one with a truck and you have to burn off the damaged section and weld on a new one. It's a major rebuilding job.

USS Cyclone Gates are made with sleeve construction. Remove a few rivets, insert a new part and you have a new gate. Cyclone gates are prefabricated. There's no cut and fit in the field. Saves us time, saves you money. Cyclone gates have adjustable truss rods. Most welded gates don't. The truss rods help true up a gate and keep it true. We say our gates never sag. They don't.

are the line posts H-Posts?

The job of the line posts: to give you strength where you need it most—across the line of fence. If they're weaklings you may be in for trouble; someday they could be called on to stop the roll of a truck or halt the veer of a car. The stronger they are, the more protection your people and property will have.

The Cyclone H-Post is solid steel covered with a heavy coat of zinc. It's designed like a beam for extra strength. Its flange and web make a better bond with concrete than the round type of line post. There's no inside surface to corrode; all surfaces are exposed and zinc-protected. There's no well to fill with water if a top should loosen; in a freeze the expanding ice can pop a top right off a hollow post. The H-Post won't crimp if sometning runs into it. It has to be twisted first, then bent to put it down. If it does go down, it can be straightened by applying heat and pulling it upright and it will still be strong and look good. With the H-Post we use on heavy-duty fence, you get almost a half pound more metal per foot than you do with other types of posts. That means more strength at no extra cost.

FIG. 4: H-post—developed by Cyclone—is designed like a beam for extra strength. Flange and web make excellent bond with concrete. No hidden surfaces to corrode.

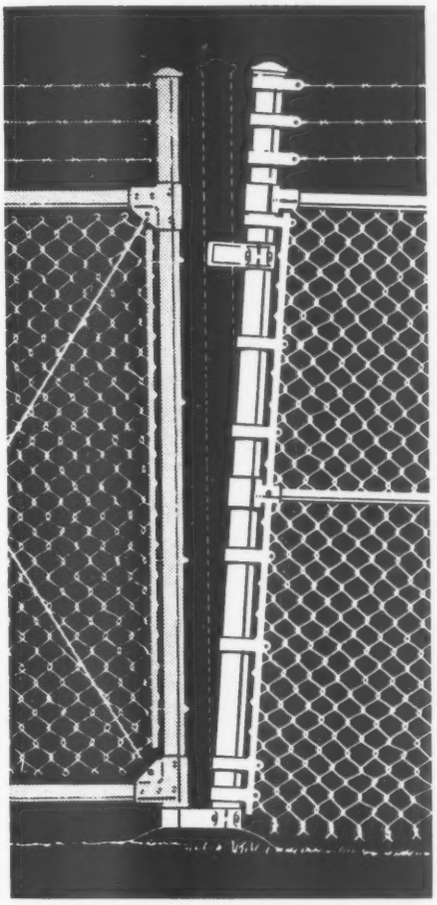

FIG. 5: Expert Cyclone crewmen set gate post a bubble off plumb. Heavy gate pulls post into line, gate swings true.

pickup crews . . . or fence men?

Your fence will look better and last longer if it's put up by men who know fence. Find out what kind of crew will put in your fence **before** you buy.

Most of our USS Cyclone crewmen have been with us for years. They know our specifications so well they can erect a fence from the "take off" on the back of our estimating sheets. There's a knack to putting in good fence. Example: the strongest post will give a little when you hang a heavy gate on it. To compensate for this lean, an expert Cyclone crewman will set the gate post a bubble off plumb. When the gate is hung, its weight will pull the post into line. These are the little tricks of the trade that make the difference between a good job and an average job.

how's the price?

Price alone is not the answer when you're buying fence. You'd be amazed what can be done by opportunists to cheapen the **quality** of a fence along with the price, without your knowing it. You may get lighter gage wire than you specify. Cheaper fittings. Lightweight tubing instead of heavyweight pipe. A cheaper grade of zinc coating. Shorter posts than specified (the company that's willing to do it can save a foot or two of metal by not sinking the posts in concrete to an adequate depth).

Cyclone makes one grade of fence, no cheaper line. Our specifications are standard. USS Cyclone Fence is pre-engineered, prefabricated to the smallest part. We stand behind the quality of all our parts and workmanship. We're a direct organization, the only people in the fence business who have complete control of everything that goes into the fence, from the mining of the ore for the metal to the actual erection of the fence. If something goes wrong, we've got nobody to pass the buck to. That's why we take special pains to see that nothing does go wrong.

recognize the brand?

It's possible to go into the business of selling and erecting fence with little more than a desk, a telephone and the price of an ad. You can get out just as fast as you got in. That's why it's important to know the brand and know you can depend on it before you buy.

Cyclone is the largest manufacturer of chain link fence in the world, and one of the oldest. We've been in business 74 years. A point particularly worth emphasizing: Cyclone is not a type of fence, it's the name of one particular brand of fence. The only company that makes USS Cyclone Fence is the American Steel & Wire Division of United States Steel. And the only people who sell it are the 69 Cyclone Branch Offices around the country.

continued on next page

continued from preceding page

can you count on service?

Cyclone has 69 branch offices around the country. Which means wherever you are, we're reasonably close by. Our service is fast, sure. Our representatives know fence and the intricacies of writing solid fence specifications. They'll be happy to sit down with you anytime and help you develop a set of airtight specifications which, if followed to the letter, will guarantee you a first class fence job.

USS and Cyclone are registered trademarks

GENERAL OFFICE: 614 SUPERIOR AVE., N. W., CLEVELAND 13, OHIO.

69 CYCLONE BRANCH OFFICES

Albany, Georgia
P. O. Box 509
Phone: HEmlock 2-6580

Albany, New York
167 Chester Street
Phone: HE 4-6715

Atlanta, Georgia
4646 Deere Drive
Chamblee, Georgia
Phone: GLendale 7-6336

Batavia, Illinois
P. O. Box 304
Phone: TRemont 9-5510

Beaumont, Texas
4975 Port Arthur Road
Phone: TErminal 5-2501

Birmingham, Alabama
1017 N. 28th Street
Phone: ALpine 2-3327

Bloomington, Illinois
P. O. Box 13
Phone: 824-8705

Boston, Massachusetts
360 Eastern Avenue
Malden 48, Massachusetts
Phone: DAvenport 4-2600

Buffalo, New York
69 Cary Street
Phone: TL 6-7828

Charleston, West Virginia
P. O. Box 162
Phone: Dickens 4-4521

Charlotte, North Carolina
1003 Pecan Avenue
Phone: EDison 3-8696

Chattanooga, Tennessee
4013 Tennessee Avenue
Phone: TAylor 1-2831

Chicago 33, Illinois
13600 So. Brandon Avenue
Phone: MItchell 6-2500
6348 W. Diversey Avenue
Phone: NA 2-3784

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1500 Fifth-Third Bank Building
Phone: GArfield 1-4460

Cleveland 1, Ohio
1287 Marquette Road
Phone: ENdicott 1-1230

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P. O. Box 4063, Edgewood Station
Phone: ALpine 2-0423

Columbus, Ohio
101 N. High Street
Phone: CApital 4-2435

Dallas, Texas
1703 Cedar Spring Road
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Davenport, Iowa
611 Kahl Building
Phone: 3-3931

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1925 E. Hancock Avenue
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Phone: CEdar 5-6608

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Phone: EDison 5-4371

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Phone: BAldwin 2-2021

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Phone: CHapel 9-6835

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P. O. Box 20084
Phone: JAckson 3-1613

Indianapolis 5, Indiana
P. O. Box 55113
Phone: CLifford 1-0087

Jackson 115, Mississippi
117 Woodrow Wilson Avenue
Phone: FL 3-6881

Kansas City, Kansas
2820 Roe Lane
Phone: KEndall 2-2472

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501 N. Walnut Street
Lansing, Michigan
Phone: IVanhoe 2-0624

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Glendale 5, California
Phone: CHapman 5-2635

Louisville, Kentucky
P. O. Box 33
Phone: JUniper 3-0408

Lubbock, Texas
2408 Clovis Road
P. O. Box 1567
Phone: POrter 2-0836

Memphis, Tennessee
3610 Park Avenue
(Mail Address: P. O. Box 6421)
Phone: FAirfax 4-5422

Miami, Florida
2925 N. W. 42nd Avenue
P. O. Box 55-7486
Phone: NEwton 5-4585

Milwaukee 2, Wisconsin
N 57—13394 W. Reichart Ave.
(Butler)
Phone: SUnset 1-7381

Minneapolis, Minnesota
4450 Lyndale Avenue, North
Phone: JAckson 1-3501

Newark 5, New Jersey
796 Frelinghuysen Avenue
Phone: BIgelow 8-2600

New Orleans 23, Louisiana
6000 Jefferson Highway
P. O. Box 23119
Phone: VErnon 3-8251

New York City 17, New York
71 Broadway—Room 708
Phone: DIgby 4-9000, Ext. 709

Norfolk, Virginia
6413 LaRue Circle
Phone: MAdison 2-4296

Oakland 8, California
954 60th Street
Phone: OLympic 2-2060

Omaha, Nebraska
117 S. 17th Street
(Mail Address: P. O. Box 542)
Phone: 342-7315

Philadelphia, Pennsylvania
Eagle and Hillcrest Road
Havertown, Dela. Co., Pa.
Phone: GRanite 2-7454

Phoenix, Arizona
2532 South Fifteenth Avenue
Phone: ALpine 2-3025

Pittsburgh 36, Pennsylvania
77 Terence Drive
Phone: TUxedo 4-3303

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2345 N. W. Nicolai Street
Phone: CApitol 6-7305

Providence 3, Rhode Island
P. O. Box 434
Phone: JAckson 1-6884

Riverside, California
3485 Orange Street
Phone: OVerland 3-4717

Sacramento, California
P. O. Box 267
Phone: GIlbert 2-7261

St. Louis 17, Missouri
6780 Southwest Avenue
Phone: MIssion 5-8017

Salt Lake City, Utah
3206 So. Main Street
Phone: HUnter 4-6321

San Antonio, Texas
2015 West Avenue
Phone: PErshing 4-5141

San Diego 1, California
2144 El Cajon Boulevard
Phone: CYpress 8-8243

San Jose, California
460 Park Avenue
Phone: CYpress 5-3310

Syracuse, New York
3001 James Street
Phone: HOward 3-0417

Seattle 2, Washington
2021 Minor Avenue, North
Phone: EAst 3-0911

Shreveport, Louisiana
4506 Mansfield Road
P. O. Box 8158 Morningside
Station
Phone: ME 1-3601

South Bend, Indiana
102 Lafayette Building
Phone: CEntral 4-5179

Spokane, Washington
P. O. Box 95 Opportunity Station
Phone: MAdison 4-0421

Tacoma, Washington
911½ Pacific Avenue
Phone: MArket 7-4551

Tulsa 4, Oklahoma
3633 Charles Page Boulevard
Phone: LUther 2-2227

Washington, D. C.
565 Jefferson Davis Highway
Arlington, Virginia
Phone: OTis 4-7992

Waukegan, Illinois
P. O. Box 260
Foss Park Ave., North Chicago
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White Plains, New York
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Steel For safety, dependability, economy.

USS **American Steel & Wire Division of United States Steel**

(Circle number 763 for more information)

WHERE TO GET HELP

A guide to useful information

PUBLIC RELATIONS

Tips for radio, TV publicity. How do you go about getting your publicity releases on radio and television? If you've been wondering what the proper procedures are, here's a booklet of do's and don't's which tells you how to prepare your material the way announcers like it.

This handbook was designed for publicity chairmen of civic organizations by the National Association of Broadcasters. Nearly everything in it is applicable to persons responsible for school publicity. There are sections, for example, on how to write copy, how to use film and tape, how to improve your personal appearance before a television camera, how to time announcements, etc.

A concluding section lists several sample announcements (public service and news releases) for radio and television.

IF YOU WANT AIR TIME. *National Association of Broadcasters, 1771 North St., N.W., Washington 6, D.C. 18 pages. Free copies may be obtained from local radio and television stations.*

MAINTENANCE

Handbook for custodians. Mechanical and electrical equipment is one of the greatest investments made in the construction of a new school. After it's installed, it is imperative that the investment be protected with proper maintenance and operation.

This handbook will help your custodians and maintenance personnel do their jobs properly.

Although the basics of engineering are discussed so that installation requirements can be appreciated, the book concentrates on the day-to-day upkeep of boilers, fans, motors, and other pieces of machinery. The language can be grasped by readers who do not have a technical education.

There are, for example, typical instructions for operating several types of boilers, how to fire up a boiler, what to look for if the boiler doesn't light off, etc. There are also sections on first aid, good housekeeping tips, and suggestions for obtaining technical assistance.

Machinery and electrical equipment in the following categories are discussed: Heating and ventilating, plumbing, sewage disposal, kitchen and cafeteria equipment, and illumination and electric wiring.

MECHANICAL-ELECTRICAL EQUIPMENT HANDBOOK FOR SCHOOL BUILDINGS. *John Wiley & Sons, Inc., 440 Park Ave. South, New York City 16. 412 pages. $9.50.*

LANGUAGE LABS

How to use them. Four authors, all specialists in the teaching of languages with electronics equipment, thoroughly discuss the operation, administration and maintenance of language labs.

Of particular interest is one section titled, *Budgets—your money's worth.* Here's a candid exploration of initial investment, administrative expenses, incidental supplies and maintenance and repairs. Other sections cover how to make a master tape, scheduling, orientation program for visitors, etc.

SOUND LANGUAGE TEACHING. *Holton, King, Mathieu and Pond. University Publishers, Inc., 59 E. 54th St., New York City 22. 249 pages. $5.50.*

EDUCATIONAL TELEVISION

Some technical aspects. Though Author Philip L. Lewis gets far too verbose, he does explain the technical aspects of educational television in language that can be understood. For districts thinking of ETV, here's a volume of useful background information.

One of the most helpful sections is a glossary of technical expressions. There is also a list of organizations associated with educational television, and a description of each with its function.

EDUCATIONAL TELEVISION GUIDEBOOK. *McGraw-Hill Book Co., Inc., 330 W. 42nd St., New York City 36. 238 pages. $6.75.*

Limitations and capabilities. "Television has neither integrity, brains nor feelings," say Authors Lawrence Costello and George N. Gordon. "It is as inclined to transmit lies as it is truth,

continues on page 30

FILMSTRIP AND SLIDE
PROJECT-ING
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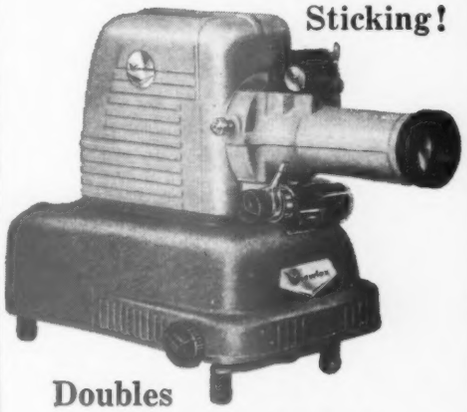
No Filmstrip Sticking!



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Student interest perks again and again—frame after frame—as you teach easier, faster with the brighter, sharper virtually "Automated" Viewlex V-25-P. It's the simplest to use, most advanced combination 35mm filmstrip and 2"x2" slide projector made. And—revolutionary new "Anti-Hesive®" aperture plates eliminate filmstrip sticking forever!

Write for FREE Booklet of Award Winning Essays on "How Audio Visual Aids Make Teaching and Learning Easier" and Viewlex Catalog.

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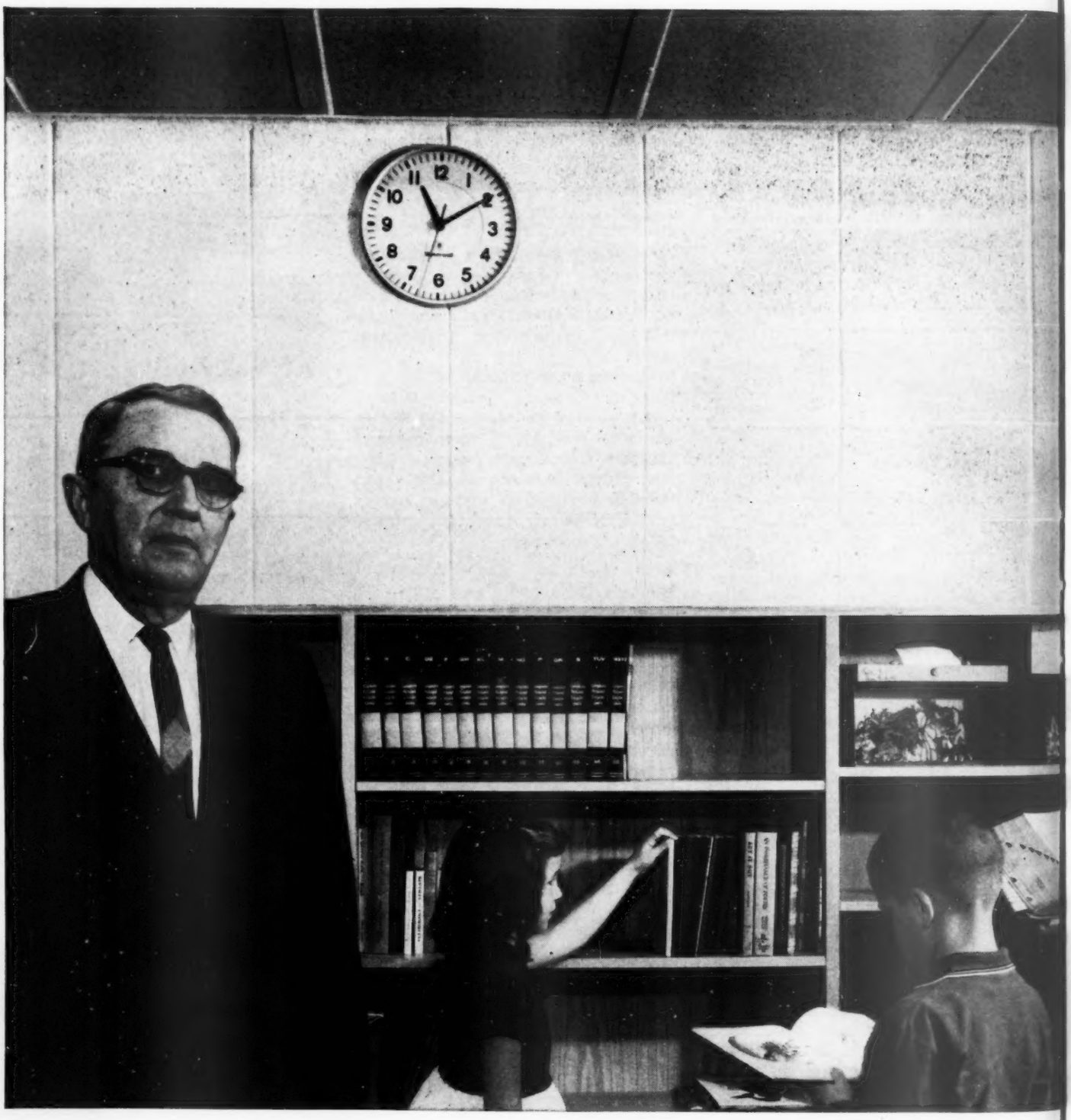
IN CANADA-Anglophoto Ltd., Montreal

(Circle number 744 for more information)

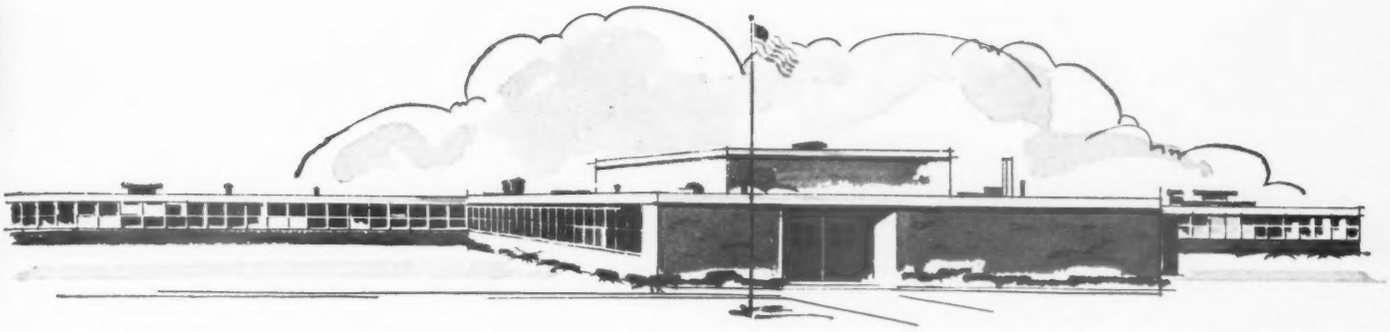
Mr. Hubert G. Olson, Superintendent of Schools,
Independent School District No. 271, Bloomington, Minnesota, says:

"A Honeywell Thermostat on the class



Mr. Hubert Olson stands in the Library of Washburn Elementary School—one of four new schools built in the Bloomington School District.

room wall is a real asset to learning!"



ARCHITECT: *Corwin, Seppanen and Associates, St. Paul, Minn.*
CONSULTING ENGINEER: *Ralph D. Thomas & Associates, Inc., Minneapolis, Minn.*
MECHANICAL CONTRACTOR: *Axel Newman Heating & Plumbing, Inc., Minneapolis, Minn.*

Teachers can adjust classroom temperatures to match the activity in each of Bloomington's four new elementary schools. Result? A more comfortable environment for learning!

"Every classroom in each of our four schools is designed for maximum student efficiency," says Mr. Olson. "And that includes proper classroom temperatures, too. With a Honeywell Thermostat on the wall of every classroom, our teachers have fingertip control over room temperature. They can adjust temperatures to compensate for outside weather changes; or, to match a particular activity during the day. Thus, our students are never distracted by an uncomfortable classroom. They work in a happier, healthier environment with fewer absences and greater in-school efficiency."

In schools, the wall is always the best place for the thermostat. On the wall, it feels the temperature the way students do. It is also more convenient to read and adjust. Fuel bills are lower because wasteful overheating is eliminated.

You can depend on Honeywell to recommend the best temperature control system for your school because only Honeywell designs and manufactures all three types of control systems—electric, pneumatic and electronic. For further details, call your nearest Honeywell office. Or, write Honeywell, Dept. SM-6-122, Minneapolis 8, Minnesota. In Canada, write Honeywell Controls Limited, Toronto 17, Ontario. *Sales and service offices in all principal cities of the world.*

Mounted in every classroom, the Honeywell Round Thermostat enables teachers to adjust room temperatures to fit specific learning activities.

Honeywell

First in Control

SINCE 1885

(Circle number 724 for more information)

trivia as it is wisdom . . . Television has no ability except to communicate, but if used skillfully it can communicate exceptionally well."

The authors have been frank in admitting that television has limitations. Under the heading, *What television cannot do*, the reader is told that certain experiences cannot be transmitted by television in any but marginal or illusory ways. For example, motivation and encouragement (particularly at the elementary level) is extremely difficult; abstract ideas are delicate and tend to be misinterpreted. But even though television possesses weaknesses, its strengths are formidable. This guide will tell you how to take advantage of its capabilities.

An interesting point is made by the authors early in the guide: "It may be that televised education will lead to two changes in our culture where change is needed: the meeting point between education and society. First, instructional television . . . may be the means for infusing into the public image of the school teacher something of the dignity and stature that it lacks at present. Second, television may help restore to students more equity over their own destinies and adventures with education than they have at present. Television may encourage independence in youngsters. In one degree or another, televised instruction is free of the solicitous pandering which many students have come to expect from their teachers."

The book treats both closed circuit and standard TV broadcasting. It's a guide to the organization, administration, financing and evaluation of ETV.

TEACH WITH TELEVISION. *Hastings House, 151 E. 50th St., New York City 22. 193 pages. $5.50.*

Floor Machine re-waxes, polishes and vacuums...all in a single pass

CUSTODIAN MERELY GUIDES Tennant Model "E" Floor Machine as it buffs off dirt and applies renewal coat of wax. Vacuum picks up dust and dirt!

In a fast, *single* operation, the 21" TENNANT Model "E" applies dry renewal wax, buffs it to a rich luster, and *vacuums* up dust and dirt!

School custodians find they can maintain hallways, gyms and classroom floors in about *one-third* the usual time and often with less than *one-half* the usual cost for wax!

Cleaning cylinder works fast

High speed cleaning cylinder revolves at 1135 rpm. Rapidly buffs off dirt and applies tough, smooth coat of protective wax—polished to a uniform gloss. No rings or swirls as with other floor machines.

Picks up dust and dirt

Powerful 265 cfm vacuum picks up dust and dirt that ordinary machines leave on the floor. Self-propelling action plus light weight (less than 100 lbs.) gives excellent handling ease.

Just guide it forward as it quickly cleans, re-waxes and polishes a sparkling 21" path!

WRITE for illustrated bulletins. When you get details on the TENNANT "E" Floor Machine, ask, too, for the money-saving story on TENNANT's new No. 15 Heavy-Duty Floor Seal . . . *the amazing Tennant System discovery that has TWICE the life of most other heavy-duty floor seals!* G. H. Tennant Company, 733G N. Lilac Drive, Minneapolis 22, Minnesota.

TENNANT

VACUUMIZED
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POWER SWEEPERS • FLOOR MACHINES • HEAVY DUTY FLOOR SEALS • V-MOPS

(Circle number 760 for more information)

ADMINISTRATION

Practical procedures. This book, written on the philosophy that school systems seldom rise above the vision and competency of their superintendents, is a guide to practical procedures of school administration.

It presents tested theory of administration, and stresses leadership, policy and administrative teamwork. Current administrative trends, based on research, are explored. For example, Authors Emery Stoops and M. L. Rafferty, Jr., identify a trend toward the requirement of credentials and advanced degrees for school librarians and audio-visual directors. The authors also see a trend toward increasing salaries and fringe benefits for teachers, and more specialized and specific assignments for all school employees.

There are chapters devoted to finance, insurance, business machines, transportation, health and safety, etc. Some sample administrative forms are included.

PRACTICES AND TRENDS IN PUBLIC SCHOOL ADMINISTRATION. *Published by Ginn & Co., Statler Building, Boston 17. 558 pages. $7.*

FINANCE

How Rhode Island finances its schools. Last year Rhode Island enacted two companion pieces of legislation which revamped the state's system of financial assistance to local school districts. In essence, the legislation gets away from setting minimum financial support programs for operations and construction.

This booklet, published by the Rhode Island department of education, explains these new laws and tells how they work. As the booklet says, "Our school systems vary in their ability to support education, and in their readiness to accept new challenges. These new laws, the first in the country to accept this fact, mean

FOR PLASTIC AT THE PRICE OF WOOD, buy VIRCO!
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muscle into school furniture. [illegible]
plastic in the seat or [illegible]

The high density plastic used in the [illegible] is [illegible] in Virco's own
plant. It has been proved [illegible] over a year of [illegible]
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MARTEST works wonders with school [illegible] and with [illegible]
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school furniture for kindergarten through college. Write today to [illegible]
Department BB, Post Office Box 44846, Station H, Los Angeles, California [illegible]
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First name in school furniture—the last word in plastics

greater flexibility in educational programs, more state guidance and leadership, and the creation of a wholesome educational atmosphere."

FINANCING TOMORROW'S SCHOOLS TODAY, *The Story of Rhode Island's School Finance Program. R. I. State Dept. of Education, Roger Williams Building, Hayes St., Providence 8. 60 pages. Free.*

PERSONNEL

Supervisory standards. In addition to finding and employing competent persons to staff schools, says this booklet, a personnel administrator must:

1. Place staff members where they can give the best service,

2. Assume leadership in formulating personnel policy,

3. Provide counsel when problems of adjustment arise,

4. Set up plans for evaluation and growth in service,

5. Develop conditions of work that will promote morale and pride in achievement.

"Standards for School Personnel Administration" explains how each of these functions can be accomplished. Unfortunately, no clearcut methods exist.

The best way to proceed is to examine first the organizational structure of the school district, starting with the board of education. Then examine the superintendent, the district policy, facilities, etc. Match everything with standards as outlined in this booklet.

Then, go through the same process (examining and matching against standards) with staff procurement and utilization procedures, staff development, and conditions of service. The procedures become rather vague at times, as do the "standards." But there's enough information here to constitute a step toward developing an evaluative instrument for practical personnel administration.

STANDARDS FOR SCHOOL PERSONNEL ADMINISTRATION. *American Association of School Personnel Administrators, Board of Education Building, Twelfth and McGee Streets, Kansas City, Mo. 48 pages. $1.*

GUIDANCE

Career guide. Addressed directly to students, this booklet explains how to understand one's ambitions and talents, and how to match them with possible careers. It answers the oft-asked question, "How can the courses I'm now studying help me in my career?"

HOW TO EXPRESS YOURSELF VOCATIONALLY. *The National Vocational Guidance Association, 1605 New Hampshire Ave., N.W., Washington 9, D.C. 24 pages. 30 cents. Quantity prices available.*

ELEMENTARY EDUCATION

Ideas for recreation. When it rains, your elementary teachers will find this book a valuable aid. It lists hundreds of games which can be played inside the classroom or other restricted areas.

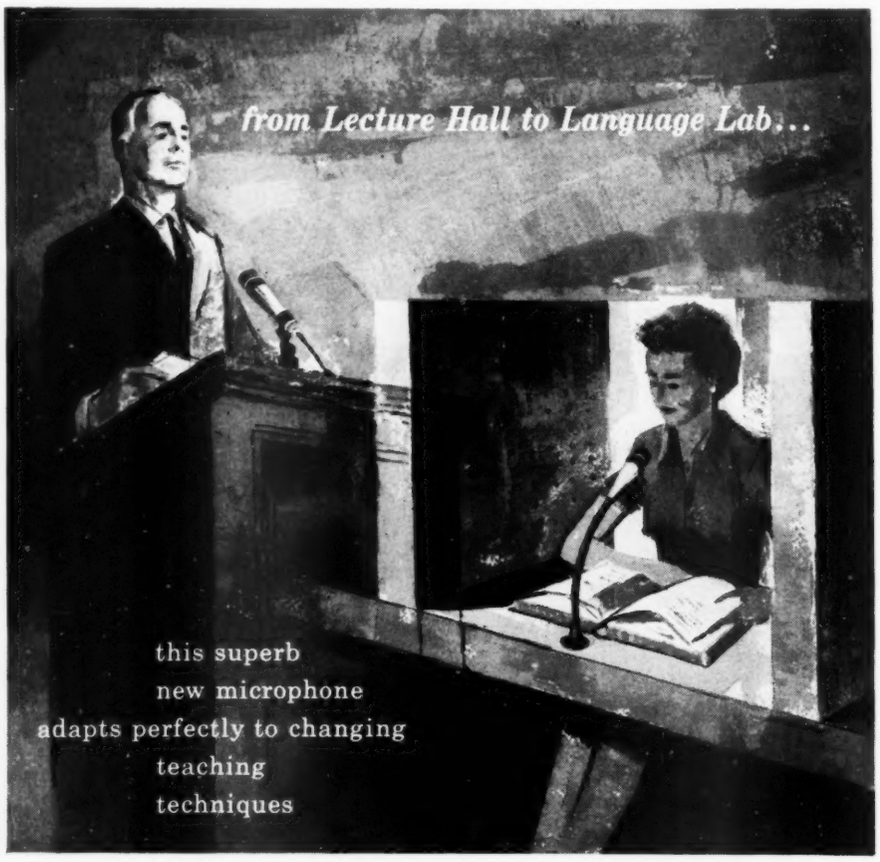
Games are classified according to age groups and types of activities. There are quiet games, semi-quiet games and party games, together with a chart that simplifies planning and selection.

INCLEMENT WEATHER ACTIVITIES. *Arco Publishing Co., Inc., 480 Lexington Ave., New York City 17. 82 pages. $1.50.*

FIRE

Electrical systems. "Electrical systems are reportedly the prime source of school fires," according to this book-

continues on page 37



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How this unit ventilator helped launch a new trend in school construction

Just four years ago Herman Nelson introduced the first unit ventilator for classroom air conditioning. It was this unit ventilator that first offered school planners a choice of future or immediate air conditioning at a reasonable cost.

Herman Nelson's unique "now or later" concept stirred interest in school air conditioning. Architects proved that air conditioned schools could often be built for less than conventional buildings. Construction savings *alone* absorbed the extra cost of air conditioning.

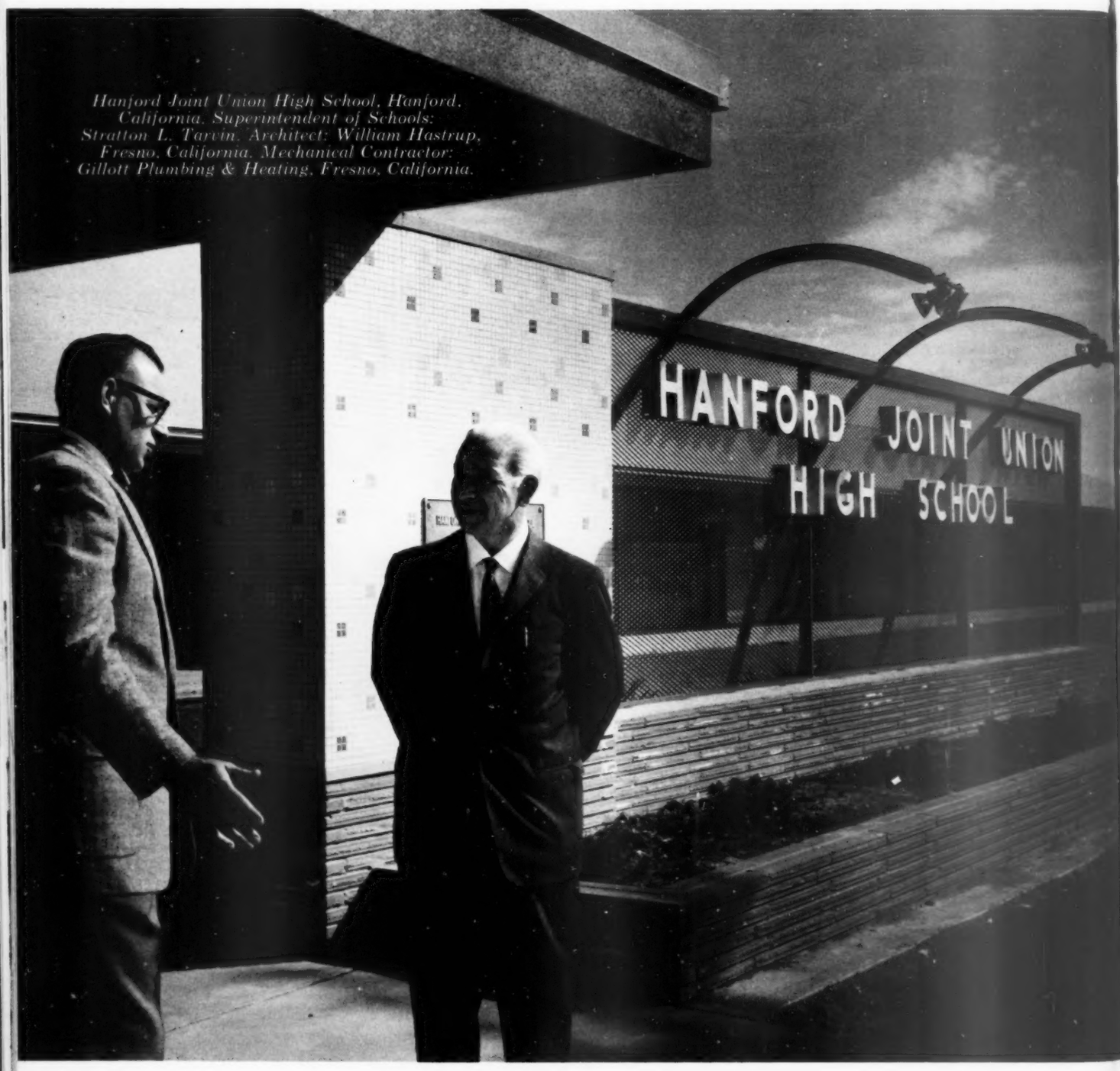
Classroom air conditioning has come of age. Hundreds of air conditioned schools have been built . . . hundreds more are on the drawing boards. Turn the page for a close look at a typical Herman Nelson "new trend" school.

Herman Nelson photo-reporter visits another air conditioned school

HerNel-Cool III Unit Ventilator. Classic architectural styling. Efficient engineering design.

SECOND IN A SERIES:

"We hope to air condition



Hanford Joint Union High School, Hanford, California. Superintendent of Schools: Stratton L. Tarvin. Architect: William Hastrup, Fresno, California. Mechanical Contractor: Gillott Plumbing & Heating, Fresno, California.

Stratton L. Tarvin (left), Superintendent of Schools, and Dr. R. deCampos, Chairman of the Hanford Board of Trustees, reflect community enthusiasm for air conditioned schools. They feel that air conditioning should be included in the plans for all future new schools in Hanford.

Mr. Tarvin says, "Air conditioning was considered in the early stages of planning. In our climate, non-air conditioned rooms are unbearable about four months during every school year. Our year-round unit ventilator system eliminates these conditions.

"Our first experience with school air conditioning has been very successful . . . students are more alert and attentive, and teachers are less exhausted at the end of a day."

all future schools"

Stratton L. Tarvin
Superintendent of Schools
Hanford, California

Architects utilize HerNel-Cool systems to reduce school construction costs

What is a community's reaction to its first air conditioned school? In Hanford, California, as in hundreds of other communities, school air conditioning has proved to be both practical and economical. In fact, school officials want air conditioning for *all* future schools.

Year-round HerNel-Cool Unit Ventilator systems allow the architect to design a more compact school. Low cost back-to-back classroom design makes it possible to eliminate design restrictions imposed by conventional schools. (Example: orientation for natural ventilation.) Expensive fenestration can also be eliminated.

Herman Nelson HerNel-Cool Unit Ventilators are flexible. They provide heating, ventilation and outdoor-air cooling during winter months, and keep room temperatures cool and refreshing in the summer. Air is filtered in each classroom unit . . . there are no dust-collecting ducts *between* the unit and the classroom. Write for more information: School Air Systems Division, American Air Filter Company, Inc., 215 Central Avenue, Louisville 8, Kentucky.

Effects of the Herman Nelson system are extremely important in the school's modern chemistry laboratory. Here a high degree of student activity, chemical odors, and other factors require the flexibility of a unit ventilator system to maintain comfortable, odor-free conditions.

Herman Nelson
SCHOOL AIR SYSTEMS DIVISION

AAF

"Reaction of parents and community to our first air conditioned school has been highly favorable. It is a good example of the community's progressive education program. We're all very pleased with it," states the Hanford Joint Union High School P.T.A. President.

Any language teacher who can tune a TV set can easily qualify as an expert in the operation of this RCA Preceptor Language Laboratory console. Two switches give the teacher complete control for each student in the class; switch one, select program; switch two, distribute program, monitor and record student performance, communicate.

It's that simple. But in spite of its simplicity you get an amazing degree of versatility from the Preceptor console. It can handle 10 different lesson tapes simultaneously, transmitting any to any student booth. Thus several languages can be taught at once and a class divided according to individual abilities. What's more, a teacher can monitor and record any student's performance, can communicate with an individual, several students or the whole class and can have one student recite for the class or for selected groups.

You get the same degree of simplicity and versatility in the learning end of the system. The system may include as many student booths as space permits. Each may incorporate equipment for student listening and responding, or, in addition, for student recording.

Both here and in the Preceptor console, RCA engineers have utilized transistors to simplify the design and enhance the performance of the system. The system needs only minimum wiring, so installation costs are low. There's a single power source and low voltage makes operation completely safe. Expansion is readily accomplished, too, at modest cost, without obsoleting present equipment.

Interested in finding out about a Preceptor Language Laboratory that's tailored for your school? That's easy too. Your RCA Educational Electronic Products dealer will be glad to make a survey of your school language laboratory needs. For equipment information or the name of your dealer, write Radio Corporation of America, Educational Electronic Products, Building 15-1, Camden 2, New Jersey.

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RADIO CORPORATION OF AMERICA

(Circle number 762 for more information)

let prepared under grant from Educational Facilities Laboratories. Overloaded circuits and makeshift hookups, as well as deteriorating insulation, are among the specific causes.

The booklet points out that hazardous conditions can exist in new buildings, even though they are more likely to occur in older ones where electrical systems do not meet current standards of design and installation.

The booklet goes on to explain what can be done to eliminate electrical fire hazards, as well as hazards from boilers, furnaces, individual room heaters, kitchen equipment, etc. Evacuation plans and "escape routes" are also discussed.

One interesting chapter covers safety facilities and fire detection devices, both manual and automatic, and describes those which are activated by smoke, gases, flames, and heat.

The booklet concludes with a "plan for action."

SCHOOL FIRES, AN APPROACH TO SAFETY. *Published by National Academy of Sciences—National Research Council, 2101 Constitution Avenue, Washington 25, D.C. 58 pages. $2.50.*

TEACHERS AND TEACHING

Social studies. New social studies teachers in secondary schools may profit from this booklet. It's the first in a series of guides to be written by "master" teachers for new teachers and trainees.

The booklet describes lesson plans (how to make and use them), common teaching faults, and practical techniques of day-to-day teaching in social studies.

HOW TO TEACH AND WHAT TO AVOID IN THE SOCIAL STUDIES. *Teachers Practical Press, 47 Frank St., Valley Stream, N. Y. 45 pages. $1.75.*

HIGHER EDUCATION

Federal programs. This is a report of a seminar held in Washington, at which college and university presidents were familiarized with higher educational programs conducted by federal agencies.

Some of the topics covered: science and engineering, international education, NDEA programs, federal legislation, press relations, research and statistics, and national educational associations. This report covers each subject briefly.

THE CAPITAL AND THE CAMPUS. *Published by Association for Higher Education, 1201 16th St., N. W., Washington 6, D.C. 38 pages. 50 cents.*

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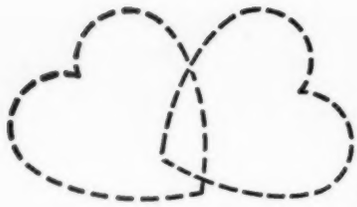

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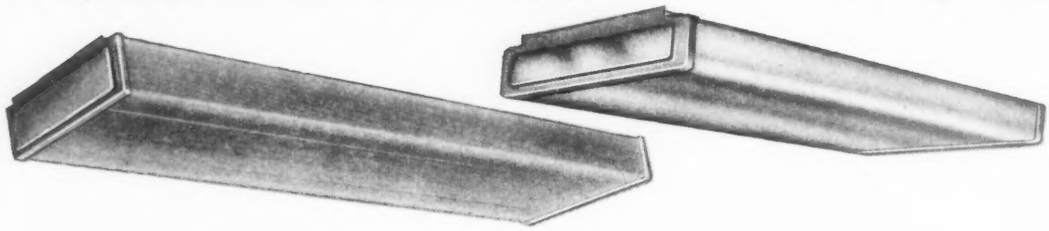
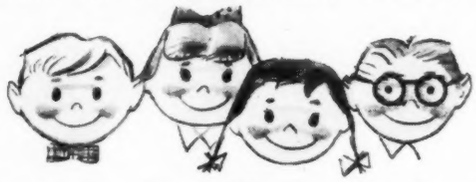
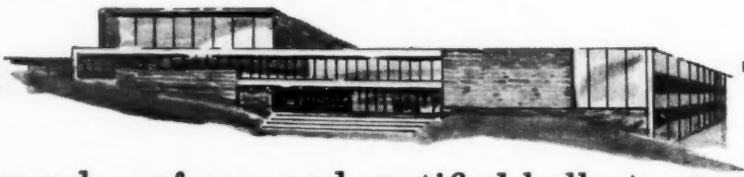


fluorescent fixture. Its prismatic or translucent white diffusers give such soft, even light. Kids love it



(and teachers too).

Contractors love its easy installation, and custodians approve the diffuser which hinges from either side — making relamping and maintenance so easy. The clean design harmonizes with both new and old buildings.



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NEWS OF THE SCHOOLS

A digest of current happenings in public education

Alert students make hobby of textbook errors

Textbook publishers beware. Teachers may "go by the book" but the inquisitive minds of your younger readers are not so easily pleased. At least that's the situation in a fifth-grade class in Cleveland's Prospect School.

It all started when Teacher Hazel Struggles assigned her class to find nouns and verbs in their dictionaries. They used the Merriam-Webster Elementary Dictionary for Boys and Girls.

Lo and behold, there on page 482 the word "prim" was identified as a noun. "T'ain't so," said a sharp but ungrammatical student. "It's an adjective." Off went six letters from the class, asking the publisher to explain. Back came six letters in reply—"You're right, we're wrong," they admitted.

Buoyed by their first success, the class went on an error-in-textbooks hunt. The most recent find: a contradiction in two places in the same textbook concerning the conditions of the Missouri Compromise.

What does the teacher think of all this? She confesses that it has been harder for her than for the children to accept the fact that sometimes even books are wrong. But now that she's caught on, she's poring through books herself—trying to catch the errors before her students do.

What a difference a few votes could make

What a difference a few votes could make. Take the plight of two Michigan school districts. In Berrien Springs, voters turned down a millage hike. As a result, the district is eliminating all sports from its program in an effort to save $66,000. Also abandoned will be music, driver education, home economics and study halls in the high school.

But this is nothing compared to the situation in Dowagiac, Mich. There, for a few pieces of change, the voters really short-changed the students. Dowagiac has a brand new high school all ready for occupancy. But the voters failed to pass a millage proposal that would have provided funds for operating the new school.

Result: The school will remain closed, all physical education, music and sports programs are being canceled and, worst of all, the voters have virtually passed a death sentence on any student's ambition to go to college. No student will be allowed to take more than four courses next fall. We'd like to see a student take such required pre-college courses as physics, mathematics, English, social studies and a foreign language under that schedule.

Absentee check guarantees safety of school children

Parents of elementary school children in Tucson, Ariz., can be sure their children reach school safely under a new plan just adopted by the district.

The plan was instituted after an eight-year-old girl disappeared and was killed on her way to school.

Under the plan, parents, of any elementary school child who is not going to school for a day, must send a note to the school via a brother, sister or neighbor's child. The note must be delivered to the teacher by the time school starts. Telephoning is discouraged because it would tie up each school's single telephone line.

If a child is absent from school and no note has been delivered, the teacher immediately notifies the school principal who, working with a volunteer group of parents, contacts the child's home. If there is no answer at the home or the parents' place of business, a school attendance officer is sent to the home to check the situation.

School officials feel that, with this plan, they will be able to keep a better check on children and also will be able to notify police of any problems early enough in the day so that tragedy can

Too good to miss . . .

They'll improve . . . Thanks to the pressure of a group of eighth-grade students, a proposal for a state tax on ski-lift tickets seems doomed in Vermont. The students petitioned their legislator asking her to oppose the tax on the grounds that better physical health among youth is a national necessity, and skiing is as good a sport as any to improve one's fitness.

In the groove . . . Two Selma, Ala., high school students have proven that corn is "in the groove." The two experimented with growing stalks in relative quiet, and next to the jangling of music from a radio. Those treated to the radio outgrew the others. Later, a small dose of music brought the laggards up to par. A university botanist says it can't be so, but it is.

We approve . . . We certainly approve the action of high school janitor Frank Grecco of Clifton, N.J., who has been going to college at night to earn a teaching degree. Degree gained, Grecco, who has been pushing brooms for 11 years, will join the teaching staff next term. As a professional teacher, he'll earn $8 a week more than he did as a janitor.

On the move . . . Students really keep Teacher Mrs. Seth M. White, Cape Elizabeth, Me., on the move. One of her eighth graders read 16 books for extra English credit. When Mrs. White couldn't find time to hear his oral reports after school, she volunteered to accompany the boy on his 6 a.m. paper delivery route, and to listen to his recitations then.

be avoided. In the case of the murdered girl, her absence was not noted until late in the afternoon of her disappearance.

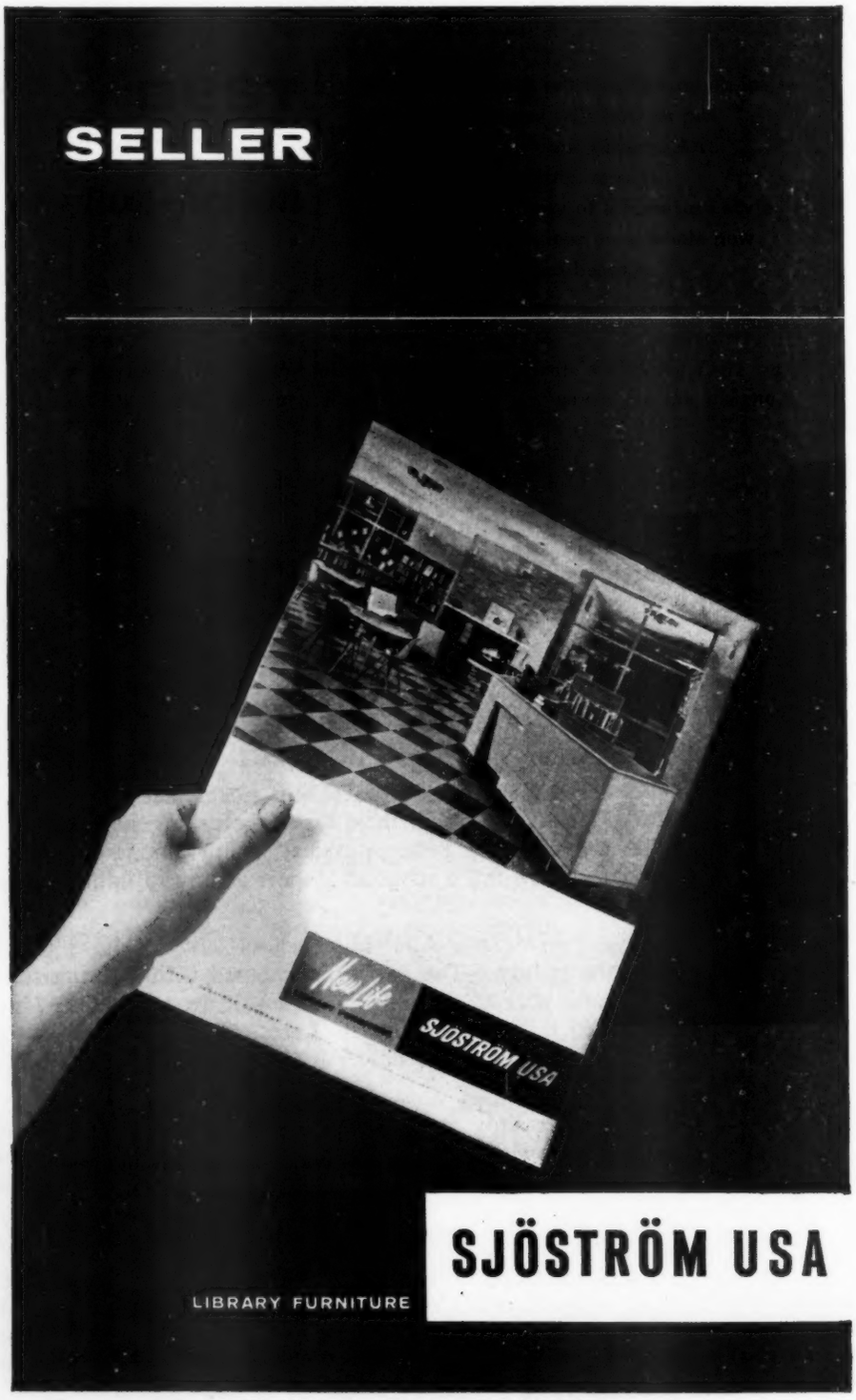
Shuttle buses bring students to classes

Three school districts in Crawford County, Ohio, have gotten together to share their teaching strengths and to make it possible for all students to take college preparatory courses.

Schools involved are Holmes-Liberty, Lykens and Mt. Zion. The three, with a fourth school in a neighboring county, plan one day to join together into a single high school district.

Until that day, however, no student has to miss out on specialized training. Thanks to a system of shuttle buses, students can be transported from any two of the schools to the third for courses in such subjects as Latin, trigonometry, solid geometry, physics, Spanish, shorthand and office practices.

Students who want to get in on this program need make only one concession—their lunch hours are cut from 30 to 15 minutes. "Without this system," says Principal William R. Donnenwirth of Holmes-Liberty, "some classes would have as few as three students. Rural schools simply cannot afford to hire teachers for such a small group. Until we get one large, centralized school, this is the only way we can provide an opportunity for all students to complete college preparatory work."



(Circle number 740 for more information)

Likes to teach

Principal Nicholas M. Nugent, of the Menlo-Atherton High School, Sequoia, Calif., likes to teach. He likes it so much that, after two years of mulling it over, he has decided to quit his job as principal.

Nugent has requested that the board transfer him to a teaching position, even though it means a $5,000 cut in salary. "I prefer to teach," he stated. "I believe I have an obligation to youth which I feel I can better fulfill in the classroom."

Nugent's request has been granted by the board and we join it in wishing him success in his new (old) venture. Good teachers are hard to find. Obviously this district has one.

Schools raise silkworms donated by Japanese

A nine-year-old boy's gift has been returned tenfold to schools throughout the United States by the Japan Silk Association. Five thousand silkworm eggs were delivered in May to grade schools in Philadelphia, Cincinnati, Indianapolis and University City, Mo.

The free project began several years ago after young Tommy Ashbaugh of Philadelphia sent the Japanese some large cocoons he had raised. Since then, he has received in return at least 500 eggs annually for further cultivation. And schools have been put on a distribution list at no charge.

The only requirement is that the schools have a fresh supply of mulberry leaves, according to Fumie Adachi of the Japanese association. The refrigerated eggs are flown each spring from Tokyo to Seattle, where they are inspected, and then flown on to New York headquarters for distribution to class nature projects.

The largest shipment this year—2,000 eggs—went to Mrs. Betty McPherson, teacher in the Greensfelder Park School at University City, Mo.,

a suburb of St. Louis. The Greensfelder school will work cooperatively with another school.

Superintendent takes candy from kids; parents agree

A superintendent who takes candy from children has won the support of his town's parents.

Superintendent John McFarland, of Houston, Tex., has instituted a ban on candies of all kinds in the schools. He also has come out strongly against PTA-sponsored candy sales.

McFarland ordered the ban in the elementary schools because consumption of sweets is detrimental to dental health.

In recommending that his principals prohibit after-school candy sales, McFarland challenged the notion that the PTA is a fund-raising organization.

"The function of the PTA," he said, "is to promote the welfare of the school and to develop better communication between home and school. It is my opinion that when a PTA becomes a fund raiser, it isn't doing PTA work."

Public relations awards

The deadline for entering the first annual school public relations awards contest, sponsored by SCHOOL MANAGEMENT *magazine and the School Board Publications Association affiliated with Rutgers University, is June 15. Entries in each of five divisions must be postmarked by then.*

The awards are designed to stimulate and improve public relations efforts of the schools. A panel of judges is being selected from the fields of education, public relations and advertising. Winners will be announced in the September issue of SCHOOL MANAGEMENT.

The five categories in which entries may be submitted are: Best annual report, best district periodical, best publication devoted to building campaign, best teacher recruiting brochure, and best special purpose publication.

For full details on this contest, see pages 79 and 80.

Textbook rental ruled out in Michigan schools

School districts in Michigan may not rent textbooks to students, unless authorized to do so by a referendum. This was the effect of a recent ruling by Attorney General Paul L. Adams.

Adams' ruling came as a result of a query from the Hazel Park, Mich., district. Hazel Park voters have turned down proposals three times to increase taxes to provide operating capital for the district. As a result, the schools are operating at a deficit.

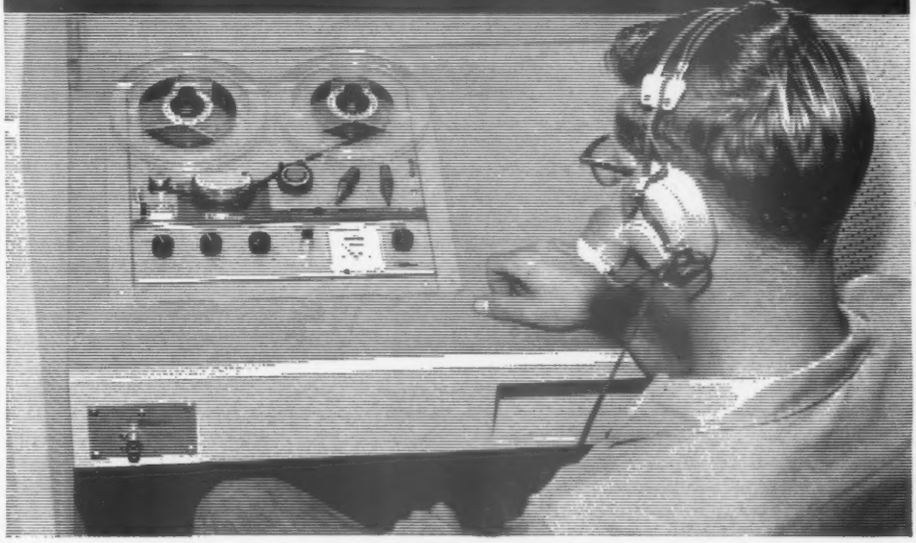
Superintendent Wilfred D. Webb had suggested that the district might have raised some revenue by renting textbooks to students. Each student would have paid approximately $2 per year. With 10,000 students in the district, a profit of $20,000 might have been realized on the rentals.

In his ruling, Adams stipulated that once a district's residents have voted to provide free textbooks to students, school boards cannot make a change simply by resolution. Such a change would have to come through a referendum, he said.

The district has been in financial trouble since 1957 when a revaluation caused a $7 million loss in tax revenues. The district is facing a $350,000 deficit at the end of the current school year.

To help overcome this, first-grade classes have been curtailed, the teaching staff has been cut, and supplies, previously given free to students, cut.

SOUND LEARNING *through* LIVING SOUND



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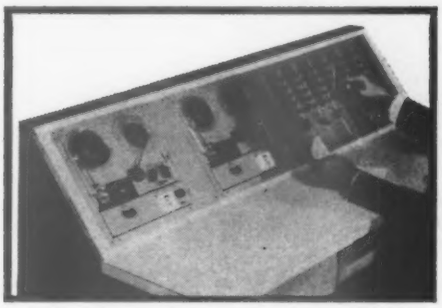

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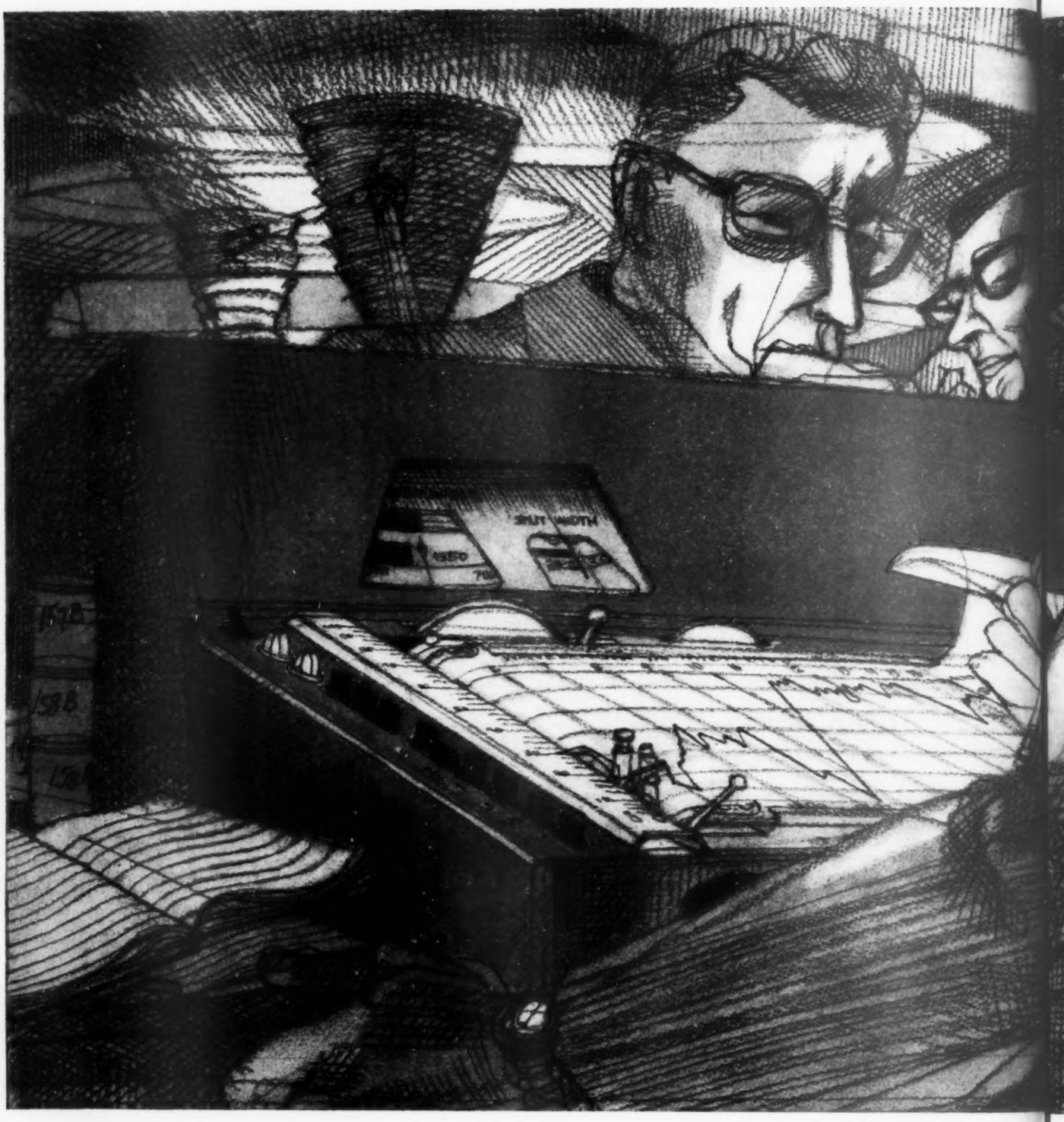

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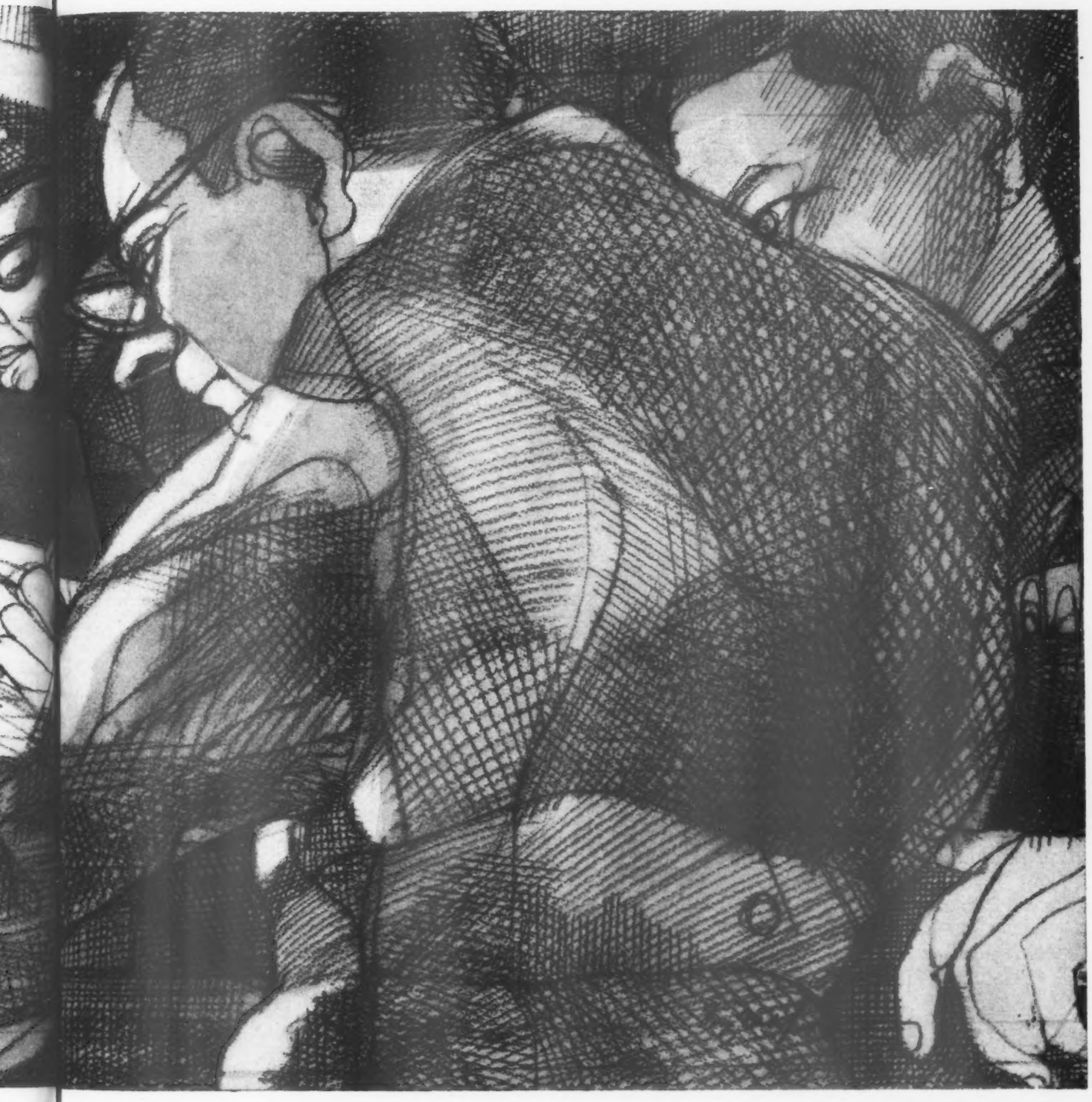

cleaners and finishes every time. We use it, too, to keep tabs on how far ahead of competition we are—in improvement of present products, and in the development of new ones. The thoroughness of this machine is typical of the thoroughness that keeps Johnson's ahead. For example, in new products like WAXTRA!—a combination Wax and Polymer finish that is far lighter in color and has extra safety—yet is tough, long-lasting, glossy and buffable. Or the newest thing in cleaners—FORWARD. It's faster than any cleaner we've ever tested, and so good and so safe you've got to see it for yourself.

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How to make your vocational training program pay off

AN SM INTERVIEW

■ ■ ■ A midwestern superintendent tells the story of a well dressed gentleman who walked into the high school's auto mechanics shop to take a look around. The visitor, manager of the largest auto dealership in town, made a startling discovery. That afternoon he called the superintendent. "Those kids were working on a carburetor that hasn't been used in cars in 20 years."

■ In a North Carolina district, the administration was about to let bids on the purchase of some new lathes for the woodworking shop. Acting on a hunch, the district business manager telephoned the production chief of a nearby furniture manufacturer. The advice he received was, "Hold off on the purchase. We're investigating a new type of lathe ourselves, and I think you'd be interested in it for your shop. I'll let you know what we find out."

■ Some New Jersey school board members recall being startled as a curriculum supervisor told them about a revised program for the high school's electronics shop. A dissenting voice was heard in the audience: "The new curriculum doesn't teach kids how to work with a printed circuit. I see printed circuits in my repair shop every day. Why don't they teach kids what printed circuits are all about?"

In each of these cases, an interested citizen kept a school from making a costly mistake. But in each instance, it was only by accident that a knowledgeable taxpayer became involved at all.

The fact is, trade and industrial education is one area of the school program which is especially in need of expert lay advice. Realizing this, many districts are making an attempt to keep their vocational facilities and curriculums up-to-date through citizens' advisory committees. These committees, groups of lay experts, keep schools informed of trends and events in the field, and suggest methods by which schools can keep their vocational training in vogue. This includes both curriculum and facilities.

Unfortunately, these committees are a mixed blessing. They don't always fulfill their promises and, occasionally, are more of a hindrance than a help. The question is, how can advisory committees be used

Citizens' advisory groups are often a mixed blessing. But in vocational training they can be a tremendous help. Here's how to build a committee, coax it into action, and make it more effective.

most effectively without threatening to dominate the school vocational program?

To find out, SCHOOL MANAGEMENT questioned two persons who are intimately acquainted with advisory groups. Sam W. King, program specialist in the Trade and Industrial Education Branch, Office of Education, is the author of "Organization and Effective Use of Advisory Committees." * Mr. King, who has consulted with advisory committees throughout the nation, discusses ways in which these committees can be, and are being used.

Edward Tracy, superintendent in the Easton, Pa., joint high school system, governs nine vocational advisory committees. In this interview, he tells how these committees operate in his district.

The following article is taken from a transcript of the tape-recorded interview with Mr. King and Superintendent Tracy:

* *ORGANIZATION AND EFFECTIVE USE OF ADVISORY COMMITTEES. Superintendent of Documents, U. S. Government Printing Office, Washington 25, D.C. 75 pages. 30 cents.*

KING

"Some vocational programs grow old too quickly."

TRACY

"Good vocational training needs committee help."

Q Gentlemen, why should any district get itself tied to advisory committees made up of men with vested interests in the school's vocational program? Isn't this just a way for the chamber of commerce to get its foot in the school door?

KING: The chamber of commerce has nothing to do with this. Advisory committees, properly used, are exactly what their name implies: advisors to the schools. These committees should be made up of local men who have specific *knowledge* in a vocation—such as printing or auto mechanics—and who are willing to work with schools to help develop the best possible training programs in these areas.

TRACY: It's very much like the physics teacher working with a physicist or engineer at a nearby plant, and picking his brains for help. Only this is on a somewhat more formal basis.

Q. How should advisory committees be organized?

TRACY: In Easton, we have one large general advisory committee as

a coordinating and overall policy group. The members consist of delegates from the craft committees, the school vocational director, and myself. We meet twice a year to examine the entire vocational program. Under this committee, there are nine craft advisory groups —one for distributive education, and one for each phase of our trade and industrial training—printing, electronics, etc. These groups deal specifically with equipment, facilities, and curriculum in their respective areas. Naturally, they meet more frequently—about six or eight times a year.

Q. How do you select members of the craft committees?

TRACY: The first thing we do, after establishing a need for a craft committee, is to go to business firms and industries in our area and ask the management to recommend the names of persons who'd be interested. Usually, they'll suggest persons in their training departments. After gathering names, the superintendent makes a decision on the group's composition.

KING: Assume that I want to start an advisory committee for metalworking. I would ask executives in two or three firms to serve, and also take a man or two out of the shops. The importance of having someone from management is obvious, but the shop employee should be given an equal measure of respect, particularly in meetings. He knows what shopwork is like and his opinions are likely to be realistic. Now, if I intend to have several craftsmen on my committee, I make sure there's a spread in their ages. An older man will be skilled, but many times the younger man has gone through a training program himself, will understand some problems from the students' point of view, and can provide the kind of practical advice I need. Every person I appoint should be a respectable man of the community who has a knowledge of the business or craft. Beyond this, qualifications are nebulous.

Q. What about his interest in education? Isn't this important?

KING: Sure. This is implied by his service on the committee. In many districts, this interest is stimulated by a letter from the superintendent or principal to the newly appointed member, welcoming him to the committee. Makes the fellow feel like his time is worthwhile. I've seen this technique work wonders.

Q. Are these committees a legal entity of the school administration?

TRACY: No, not formally. They're part of the school system only in the respect that their minutes become part of our records, and their recommendations are acted upon by the school board. Committee members are not paid, and the committees themselves have no budget.

GETTING STARTED

If you are planning to form a new advisory committee, or reorganize an existing one, here's how to set your committee's policy at its first meeting. The following information is excerpted from Mr. King's book, "Organization and Effective Use of Advisory Committees."

■ A member of the school administrative staff, either the superintendent or director of vocational education, should serve as chairman of the first advisory committee meeting. Even if the superintendent designates a member of his staff to serve as chairman at the organizational meeting, he himself should make every effort to attend. The first meeting provides an opportunity for the top school administrator to welcome the committee, to thank the members for their cooperation, and to express his views concerning the committee's functions.

On the whole, an advisory committee will make its most effective contributions when the following conditions exist:

1. The reason for organizing the committee is well understood by both committee members and school officials.

2. The committee has been given a clearly defined function.

3. There is no question on the part of the members that the function is a needed one.

just for the sake of having one."

KING

Q. Is membership permanent?

KING: This varies from district to district. I think craft committees are most effective when their members serve on a rotating, staggered basis, like school boards. This brings in fresh ideas from time to time, but provides for some continuity in policy. The members elect a chairman from among themselves and a vocational instructor usually serves the committee as secretary.

Q Mr. King, what's the best way to conduct a committee meeting? Should the floor be left open to discussion on any topic? Or, should every meeting be devoted to solving a specific problem?

KING: The committee should meet regularly. If there's no problem to discuss, or decision to be reached,

"The superintendent should never let a committee assume any function in matters executive, administrative or legislative. He must set the record straight in the beginning."

TRACY

4. The committee is able to perform the function.

5. The committee is wanted by the school; its contributions are valued by the school administration; and the superintendent and his staff are willing to give the necessary time, energy, and support to make it successful.

During the first meeting, the chairman should explain the committee's purpose and the method used to select its members. He should make sure the members have a clear understanding of the role of the committee. The members must understand that they cannot assume legal rights which do not belong to the advisory committee, since action and final decision rest with the administrative head of the school, who in turn is responsible to the board of education. But the committee should be assured that its recommendations will receive serious consideration.

The members of an advisory committee should understand their duties and responsibilities to the local school and the philosophy, policies, and standards for trade and industrial education in their state. They should be familiar with the general policies of state and federal acts dealing with trade and industrial education. The major portion of the first meeting should be spent in interpreting these principles and acquainting members with the activities of the local school. The acting chairman might give a brief sketch of the objectives of the school, its present status, and plans for expanding its program. The committee should plan to visit the school in order to become better acquainted with the training offered.

Craft committees often spend considerable time in the shop during the first meeting. The instructor or head of the department explains the training program offered by the school, the physical facilities and equipment, the specific objectives of the training program, and some of the current problems.

Each year new members should be oriented in a similar manner. This repetition might become boring to old members of the committee, but the value of the time spent would be reflected in the enthusiasm and intelligent activity of the well oriented members.

the school representatives should inform the committee of action taken on previous recommendations, and keep the committee acquainted with the state of the shop. To keep meetings active and productive, the vocational director should make up an agenda prior to the meeting and mail it to all committee members, with a time and place notice.

TRACY: That's the way we do it in Easton. Most of our committee members are businessmen, so we use the Kiwanis-Rotarian approach. It's understood that our meetings must be over no later than 1:30, and we stick to the agenda.

Q. Doesn't a time limit result in a hasty, ill-considered decision? Or no decision at all?

TRACY: On the contrary, it increases efficiency and eliminates wasted time. Time means money to these men. They'd rather have the problem thought out and researched in advance. This is why Mr. King emphasized the importance of the agenda. You start extending a meeting into the middle of the afternoon and you'll find that your attendance is ruined.

Q. What's the most effective way to get action out of your committee meetings?

KING: Streamline them. In fact, the entire procedure should be streamlined. Generally speaking, there are five basic steps which should be followed:

1. A problem is presented—new lathes for the woodworking shop.

2. A note is made on the committee agenda for the next meeting. Members are asked to give it thought and be prepared to make a decision.

3. Committee members go into the shop, query the instructor, perhaps even the students. Individual members develop ideas on the kind, type and number of lathes needed.

4. In the meeting, each member is given an opportunity to express his opinion. Details are thrashed out and a decision is reached. A recommendation is made and passed to the vocational director or superintendent.

5. The recommendation goes before the school board, with comment by the superintendent, for action.

Q *What kind of advice and help could a district expect from these committees?*

KING: The committees should be available to help in purchasing equipment, in planning new facilities, in solving specific problems in the school shops, recommending changes in the curriculum, etc. A word of caution, though: An advisory committee should never be created just for the sake of having one. In fact, a cardinal rule is that the committee should be kept busy. Otherwise, interest will wane. Don't forget, the members are busy men. Unless they are given a problem to tackle, they will resent the wasted time in meetings and conferences. And once the problem is solved, don't let the committee lie dormant. Keep it active—or dissolve it.

TRACY: Here's a good example of the type of service our committees render. We're now building a new high school in which there are nine vocational shops. Each shop was planned by its respective craft advisory committee, from the ground right up to the roof, construction-wise, equipment-wise—even to programing of projects and the curriculum. The committee didn't do it alone, of course, but its expert advice was used by the vocational director, the faculty, the administrative staff, the school board and the architect.

KING: One of the most valuable services a committee can render is that of keeping the schools informed of trends in the field, of new developments and new industrial techniques. A district's vocational program could grow stagnant all too easily, and an active craft committee can prevent this sort of thing.

Q. Should committee members go before the school board with recommendations and make themselves available for questions? Wouldn't this cement relations between the school board and the committee?

TRACY: Not necessarily. I usually handle minor matters myself or let the vocational director handle them. The committee members certainly don't want to be bothered. They place a premium on their time. Now, on a major matter—the purchase of these lathes, for example—I would bring in the vocational director, some members of the advisory committee, perhaps even an instructor.

Q. Suppose the school board turns down the recommendation of the advisory committee? What can the superintendent do?

TRACY: I tell the advisory committee what happened. And why. There's no point in trying to make excuses for the board.

Q. And if this happens several times? If similar recommendations are vetoed more than once?

TRACY: This assumption is too broad. The school board recognizes that an advisory committee has a limited, but specialized knowledge in its particular area. The board, in some cases, is actually dependent upon the committee. It may even suggest that the committee investigate matters and report back to the board. Remember, there's democracy at work here. The general advisory committee may recommend a new building program and ask for the moon—knowing it won't get it. But the committee would try again later with a similar proposal—and get a compromise. After all, that's what an advisory committee's for. The board and I would be very unwise to turn down the committee's recommendations time and time again. There would be something radically wrong if we did, or had to.

Q. Is the superintendent a member of each craft committee?

TRACY: No, only the general advisory group. But the vocational education director is. And sometimes a craft instructor has membership, too.

Q. What's the best way to avoid conflicts between the advisory committee and the vocational instructional staff?

KING: Assuming there is a conflict —and this is likely, though no

continues on page 82

TRENDS

TRENDS

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A schoolman's guide to

LANGUAGE LABORATORIES

■ ■ ■ How quickly are high schools adopting language laboratories today? One manufacturer of language lab equipment answered the question for SCHOOL MANAGEMENT editors by saying: "Too quickly."

"Understand," he said, "I'm not trying to cut my sales. We're swamped with orders. But there's nothing worse for us as manufacturers, or for schools themselves, than the installation of equipment that can't, or won't, be used properly.

"Before we will accept an order from a school, we like to know whether the teachers want a language lab and how they plan to use it.

"Language laboratories can be a great asset to the schools —if they are properly planned. And proper planning means involving teachers. We have equipment available right now that is more than adequate for schools in the forseeable future, but it must be used properly if it is going to have any value at all."

The trend

The fact of the matter is that, planned or unplanned, schools throughout the nation are installing language labs at a furious pace. Unlike a gymnasium, an auditorium, or a closed circuit television system, a language lab can be installed in any existing school with a minimum of expense or bother. The wiring is fairly uncomplicated and any ordinary classroom will serve to house the facility.

The great majority of language labs are being put in in just this manner. Some schools are devoting whole rooms to the labs. Others have taken parts of rooms or installed portable equipment. Recently, some manufacturers have made it possible to purchase language labs housed in vans that can be driven from school to school.

A pretty good gauge of the acceptance of language laboratories can be gained from a survey of the number being installed in new structures. For example, of 296 new high schools being planned or presently under construction, 80 are installing language labs.* This means that 27% of new

** These figures were compiled by the School Construction Reporting Services of School Management Magazines, Inc. between March, 1960 and February, 1961.*

high schools are installing an expensive setup that was almost unknown in the public schools three years ago! And this includes only those that have language labs in their capital budgets. Many more will undoubtedly add labs with current funds soon after the school has been completed.

In new junior-senior high schools, the figure is hardly less startling. Of 134 being constructed or planned, 28, or better than 20%, are installing language laboratories. Even among new junior high schools, 25 out of 172 (almost 15%) are planning language labs.

Moreover, these figures must be measured against others supplied by the Modern Language Association. That group estimates that only 60% of all public high schools in the United States are currently teaching a modern foreign language and less than 9% of high school students are studying a modern language. In the junior high school grades, less than 4% of the total student population is engaged in the study of a modern foreign language.

Interestingly, the number of students in the district seems to have only a slight effect on the probability of installing a language lab. All districts with between 300 and 12,000 students were surveyed. Among those building high schools, the larger districts (1,200 to 12,000 students) were slightly more prone to install language labs, but even among the smallest districts, one of every five schools had a laboratory in its building plans.

In junior-senior high schools, the only real variation according to district size came among the largest districts surveyed (6,000 to 12,000 students), where better than 60% of the schools have language labs planned. Among districts building junior high schools there was comparatively little variation according to size in the percentage installing language laboratories.

HIGH SCHOOLS

District Size	No.	With Labs	% With Labs
300-600	37	7	19%
601-1,200	58	12	21%
1,201-3,000	109	28	26%
3,001-6,000	61	24	39%
6,001-12,000	31	9	29%
Total	**296**	**80**	**27%**

JR.-SR. HIGH SCHOOLS

300-600	23	3	13%
601-1,200	33	4	12%
1,201-3,000	42	9	21%
3,001-6,000	18	1	6%
6,001-12,000	18	11	61%
Total	**134**	**28**	**21%**

JUNIOR HIGH SCHOOLS

300-600	14	1	7%
601-1,200	27	4	15%
1,201-3,000	50	6	12%
3,001-6,000	54	10	19%
6,001-12,000	27	4	15%
Total	**172**	**25**	**15%**

TRENDS

How and when to buy a language lab

Your district must pass two tests before it can use a language lab. If it can, here's a guide to the kinds of equipment that are available.

■ ■ Does your district need a language lab? The answer is "yes" if, in your district:

1. You have accepted the fact that the fundamental purpose of teaching any modern language today is to prepare the student for communicating—speaking—the language well enough to be understood by, and understand, a native. Not all school systems have established this objective.

2. Your teachers and language department heads have personally observed and accepted the benefits that accrue when a language lab is employed.

There is no questioning the value of a language laboratory if your district is using the conversational approach to language teaching. In an ordinary language class of 50 minutes duration, each of 25 students will get about two minutes of individual conversation and instruction. With a language lab, each student can get as much as 50 minutes of individual conversation and instruction.

The teacher's role

The first step in introducing a language laboratory into any school district must be winning the support of the language teachers. A language lab will *never* replace a teacher. It is not designed to do the teacher's job. It *can* relieve the teacher of a great deal of the repetitious drudgery of drill, leaving her free to work on special problems with individual students.

To be successful, teachers must have an opportunity to investigate a lab long before it is introduced into the classrooms. They will need time to adjust their courses, to select and prepare material, to learn how to use the equipment.

In the hands of a well prepared, enthusiastic teacher, a language lab can be an extremely valuable tool. Without her support, it is almost useless.

Assuming you have the curriculum and the teachers to make a language laboratory work, what kind of equipment should you buy? Here are nine steps to the successful purchase of language laboratory equipment as suggested by Robert W. Schaerer, assistant superintendent for business affairs of the St. Charles, Ill., school district.

1. How do you intend to use the laboratory?

There are three basic methods for using a language lab. The first takes very little equipment; the last a great deal. The three methods are:

1. Listening to the spoken language (listen). To use the lab for this purpose only, your schools will need one or more record players or tape recorders and, if you wish, some earphones to give students a sense of privacy while they are listening. The earphones also help to remove distractions.

This simple setup is particularly useful in the early grades or in the early stages of language instruction. Everyone in the class must, of course, listen to the same recording. It encourages careful listening to a foreign language and involves speaking. But errors in pronunciation, timing, and stress are frequently not corrected since most speaking is done by groups of students, rather than individuals.

2. Listening to the spoken language and speaking it (listen-respond). For this purpose, the lab must be equipped as for listening only, but, in addition, students must have microphones into which they can speak. To be most effective, each student should have his own headphones, to re-

ceive the tape recordings, and a microphone in an individual booth.

The responses of the students are picked up by the microphones in the booths. A teacher, sitting at a desk, may monitor their efforts individually, or, if she wishes, cut into the circuit distributing the recorded lesson to correct pronunciation and answer questions.

3. Listening, speaking, and comparison (listen-respond-record). This is the most complete use to which language labs are being put at the present time. In addition to doing all the things done in the first two methods, the student has an opportunity to compare his speech patterns with those of the instructor or other "native" language speaker. Naturally, since this is the most complete use of the lab, it also involves the most expensive equipment. To use this technique, each student will need two tape recorders or one recorder with a binaural head, making it possible for the student to record his own voice in response to instructions given in the lesson and then play back his response and compare it with the recording.

With this laboratory, each student listens to his own individual tape recording. The tape the student hears is recorded in a special way. One-half or one-quarter of the track (in width) has been previously recorded with the instructor speaking the material which comprises the lesson. At various intervals, the instructor is silent, and the student is requested either to imitate him or respond to questions he asks. During these silent intervals, the student speaks into a microphone either in the booth or attached to his earphones. His voice is recorded on the tape's remaining track.

The student, having responded to the instructor's voice, now plays back the entire tape. He hears the instructor and his responses. Then, if he wishes, or if instructed to do so, he can correct his own errors and repeat the lesson if necessary.

During the lesson, the live instructor is stationed at the teacher control panel—or console—which is the master controlling instrument for the entire language laboratory. From this position, the teacher, wearing a headphone and microphone headpiece, is in direct contact with any or all of the booths. By flicking the appropriate switch, he can have a private conversation with any student in the lab, listen to his progress or speak simultaneously to all students.

II. Grouping students

The way you group students will also affect the lab you need. For example, if you intend to make the lab available to students studying on their own (the "library" method), then you must provide equipment which is versatile enough so that several students can study individually at the same time. The very least you will need is a listen-respond lab, equipped with individual recorders and microphones. A listen-respond-record lab will be more valuable, since it gives each student an opportunity to advance at his own pace on his own work and gives the teacher a chance to evaluate his progress.

If you will not be giving students a chance to work on their own, you may still want to have groups of varying abilities, levels or languages using the lab at the same time. If so, you will need a console with as many channels as you have groups, or a series of tape recorders with individual earphones and microphones.

If all students in the lab are going to work together on the same material, at the same pace, then the simplest type of laboratory is possible. This can consist of no more than a record player or tape recorder with students listening directly or by headphones. Again, the installation of microphones can make it possible for the teacher to correct individual speaking deficiencies.

III. What size laboratory?

Ideally, each student should be provided with his own facilities. As a recommended minimum size, the laboratory should be no less than one-half the size of your largest language class. It need not be larger than the largest class.

The lab should be planned for flexibility. Many schools have started with a small group-type laboratory, gradually expanding, adding components and equipment to make full, individualized, library-type laboratories.

If you intend to expand your laboratory, proper planning is necessary. Large conduits should be installed at the start to hold all of the electrical power lines and sound cables which eventually will be necessary. Two separate conduits will be needed: one for the electrical power lines and one for the sound cables.

IV. Discs or tapes?

One decision you will have to make early is that of discs or tapes. The magnetic disc-type installation is cheaper and promises long wear, but has a lesser degree of fidelity and the discs have only a four- or five-minute playing length. An installation using tape has a high degree of fidelity and the tapes play for an hour. But this is more expensive and tapes wear out relatively quickly.

V. What type of recorder?

A monaural tape recorder has only one channel. You can either listen or record, but cannot do both simultaneously. If students are to evaluate their language against that of the instructor, you will need binaural recorders or two monaural ones for each pupil. There are three types of microphones—dynamic, crystal and ceramic. The dynamic units give the best fidelity and are of the best quality, but they are expensive and fragile. The ceramic and crystal units are lower in quality, but their ruggedness makes them more than satisfactory for student use. It's a good idea to purchase at least one dynamic microphone for the instructor's use in making master recordings.

VI. What type of headphones and microphones?

There are also three types of headphones—magnetic, dynamic and crystal. Crystal is superior in fidelity but doesn't have the sturdiness of the others. Headphones are

affected by changes in temperature and humidity. This should be taken into consideration when purchasing them.

VII. What type of booths do you need?

There are, in general, two types of language lab booths. The convertible type folds down when not in use, thereby making a desk and allowing the room to be used for other classes. A permanent type booth does not fold down, but it offers a high degree of isolation and acoustical treatment. Permanent booths are usually available in wood and metal. Booths are available in two sizes—30 inches by 30 inches, which is adequate, and 36 inches by 36 inches.

VIII. An isolation booth or portable recorder?

If your lab is being used to capacity, it may be desirable to construct an isolation booth in the room. This enables a teacher to make master tapes and to grade student tapes without using the console. Similarly, if a teacher cannot find time during the day to make masters or grade tapes, he should be provided with a portable tape recorder of the same manufacture as the type in the lab. This permits the teacher to work at his leisure.

IX. How much will your lab cost?

Obviously, the complexity of your lab and the quality of your equipment will determine your costs. In general, however, the audio passive lab for listening only will cost from $30 to $100 per student. The non-recording listen-respond type lab, for use by groups, costs about $100-$150. The listen-respond type lab for use by individuals costs from $150-$250 per student. The most flexible lab, listen-respond-record, which permits listening, speaking, and comparison, plus use by either groups or individuals, costs from $300 to $500 per student.

TRENDS

A buyer's guide to language laboratory equipment

Here is a listing of 28 companies known to manufacture language laboratories for schools, along with a thumbnail description of each available product. It is presented with the cooperation of the National Audio-Visual Association.*

AMERICAN SEATING. CO.
901 Broadway, Grand Rapids 2, Mich.
Electronic Learning Center

Listening:
Student listens via Brush BA200 earphones to model voice from control center tape decks, phonograph or external.

Responding:
Student responds in chorus or individually on astatic mike, hears his own voice in his earphones.

Instructor contact:
Student receives teacher correction over intercom.

Recording:
Teacher records students' performance on up to 12 tracks of tape decks at control center. Time for each is unlimited. The teacher records student performance, entire or in part. He makes trials, compares, erases, rerecords, repeats as required.

AUDIO TEACHING CENTER
137 Hamilton St., New Haven, Conn.
ATC Convertible Language Laboratory

Listening:
Student listens via dynamic or crystal headphones, and either has the model voice on his own tape, or records it from the Model T 20 master console as the laboratory lesson proceeds. ATC student positions may be used in any combination of listen, listen-respond, listen-respond-record.

Responding:
Student responds individually or in chorus, using Audio Learner MX 500 microphone; hears his own voice amplified in his headphones.

Instructor contact:
Student receives instructor correction over intercom. Instructor can monitor individual student without his awareness; can address entire group or selected groups. Entire lab may be stopped and started from Model T-20 master control console.

Recording:
Student records his performance, entire or part, using his own Model B 2 or B 4 series tape unit with S 12AC amplifier. He makes trials, compares, erases, rerecords, repeats at will. Instructor may record students at console,

continued on page 86

*Most of the listings presented were compiled for use in the seventh edition of The Audio-Visual Directory, published by the NAVA. This valuable 288-page directory lists available audio-visual equipment in 23 different categories. It may be ordered for $4.75 from the National Audio-Visual Association, 1201 Spring St., Fairfax, Va.

How they handle merit pay—

THREE CASE STUDIES

If your district is thinking of incentive pay for teachers, watch out for the pitfalls and booby-traps. Here, three experienced superintendents match their merit plans with four keys to success and explain why their districts passed or flunked.

■ ■ ■ Virtually every school district in the United States has a merit pay plan.

The trouble is, teachers are said to "merit" salary increases simply because they survive another year in the classroom—not because they do a better job of teaching.

Merit pay is a dirty word to most schoolmen. To administrators and board members, it means extra staff work—with larger budgets for salaries and administration. To teachers, merit pay seems a divisive instrument that sets colleague against colleague in a mad scramble for a little extra cash. To the National Education Association—leading the fight against merit pay—the whole idea suffers from a lack of objective means of evaluating teacher performance.

Nevertheless, there is evidence that merit pay plans can work if they are properly conceived, planned and executed. At a recent seminar sponsored by the management consulting firm of Barrington & Co., Inc., superintendents and school board members outlined four steps basic to a merit plan's success. These four steps are:

1. Definite goals and objectives must be established before any action is taken. A district must answer the question, "What is it we are trying to do with merit pay?"

2. A district must expect to study merit, work out its own plan and introduce it carefully and slowly.

3. The plan itself must be realistic and acceptable to all factions, without acquiring the nasty connotation of "compromise." It must be founded on a sound and adequate basic salary schedule.

4. Continuing study, revaluation and changes must be undertaken.

Are these steps *really* the hinges of success and failure? To find out, a SCHOOL MANAGEMENT editor asked three experienced superintendents to relate their merit plans to the steps. One of these plans was successful; one worked for a few years, then failed; the third plan never really got off the ground. Here's how each of the plans was developed and instituted—and why each did or did not function properly:

WE ASKED:

1 WHAT WERE YOUR OBJECTIVES?

2 HOW DID YOU PREPARE YOUR PLAN AND INTRODUCE IT?

Of these three plans, one succeeded — one failed — one faltered. Here's why:

omerville, N.J.

John B. GEISSINGER

low superintendent in Tenafly, J., Dr. Geissinger was super-tendent in Somerville from 952 to 1958.

Our school board set the ob-ectives of the Somerville merit ay plan. The aim was to "en-ourage improved teaching erformance and bring about n ever increasing quality of ducation." The intention was ot to increase or decrease sal-ries, because we already had n adequate and competitive alary program. There was a ncere desire by the school oard to reward outstanding achers with slightly larger in-rements.

The school board studied, de-eloped and instituted our lan within a few months. A lan was proposed in the pring and the board had it eady for the opening of school he following September. Since number of the board mem-ers already had experience ith merit rating in industry, ey had no difficulty in set-ng up a plan which they con-idered functional. There was ttle chance to consult with ose persons whom the plan ffected, and those who were make it work.

Scituate, Mass.

Edward K. CHACE

Mr. Chace, now superintendent in Moorestown, N.J., was in Scituate until October, 1959.

Improvement of instruction was our primary objective. Everyone involved felt this had to be. Secondarily, there was a hope that our plan would raise salaries, too. Compared to neighboring districts, our teaching wages were not the highest in the area.

We allotted a full year to studying our plan and developing a good appraisal instrument. It was carefully introduced to everyone. Then, we decided to put the plan "on trial" for three years. Everyone had the understanding that if the plan did not work, it would be dropped.

Summit, N.J.

Roberts vS. REED

Mr. Reed has been superintendent in Summit since 1947. He is retiring this month.

Our objectives were three-fold. First, we hoped to obtain, and retain, better teachers. Second, we were looking for a way to improve teacher performance. Third, we wanted to reward those teachers who were doing an outstanding job.

We needed three years to get our plan into shape because there was a lot of back-tracking, reappraisal and disagreement. In the beginning, we formed a small teachers' committee as part of our planning group. These teachers were informed of every step as the plan evolved and, in some instances, they actually made suggestions for improvement. As the plan became more complex, the committee was enlarged. After three years, by the time we had a presentable plan, about one-third of our district's teachers had a working knowledge of merit pay. Through them, we got facts on merit to all our teachers.

WE ASKED:

Somerville, N.J.

John B. GEISSINGER

3 WHAT WAS YOUR PLAN?

We had a supermaximum clause which awarded superior teachers on the last step of the basic salary guide a $150 increase. To get this money, teachers had to be rated "superior" for the year, and for one of two preceding years. Teachers were evaluated by the administration and supervisory staffs, whose ratings were based almost entirely on classroom observation. Teachers who had not reached the maximum were given $200 automatic increments.

4 HOW WAS YOUR PLAN MODIFIED?

After two years, our plan was revised so that teachers judged "superior" were awarded $400, teachers judged "good" were given $300, teachers judged "fair" were given $200, and teachers judged "poor" were given nothing other than their basic salaries. There were no automatic increments under the revised plan. At the same time, a new salary guide was instituted. Under this, teachers who had reached the maximum, and who were "superior," could be awarded any additional amount at the discretion of the school board and the superintendent. The plan was now palatable to several levels of teaching performance.

5 HOW WAS IT RECEIVED?

Because of the haste with which it was introduced, there was a lot of suspicion and resentment on the part of the administration and faculty. Our plan was opposed right from the beginning. Some teachers felt the plan emphasized individual performance at the expense of cooperative teamwork, particularly after it was revised. Teachers' morale was very definitely lowered. Then, too, since the administration was not favorably disposed toward the plan, it suffered from lack of leadership.

6 AND THE RESULTS?

This plan was doomed at the outset. Our board was so hasty that too little time and study were devoted to the plan. This was a very decided mistake. I think our evaluative instrument was much too long and cumbersome. It was later shortened to a single page, but the entire evaluative process required too much time to give it the attention it required. Merit pay never worked successfully in Somerville, and was discontinued in 1957.

Scituate, Mass.

Edward K. CHACE

Our plan was based on a point system. Teachers were awarded $300, $200 or $100 above their normal annual increments ($200) depending on their scores on the evaluative criteria. An average teacher was given only the $200 increment. There was also a clause which withheld normal increments if teachers scored below a given point. Every teacher was evaluated every year by his principal, whose judgment was primarily based on classroom observation. But the teacher completed a self-evaluation first.

In the third year, our plan was modified to include a "4% clause." Teachers at maximum who were judged "outstanding" were given a 4% salary increase once every three years. This was, frankly, an economy move, but it made the annual increment too low for teachers at maximum. They became doubtful about undergoing evaluation for a salary raise of less than 2%.

There was no strong objection at first, but later too many teachers began to reach the maximum. Because this plan represented an attempt to raise salaries, perhaps we gave more merit increases than we should have. Our teachers weren't happy with merit. Our principals also objected. They did all of the actual evaluating; annual evaluation of as many as 25 teachers was time consuming. Other responsibilities were often shunted aside because of this.

Merit pay was a success in Scituate for the first two years it was on trial. Salaries were increased and morale was improved, but then came the 4% clause. There was also a change in the administration at the end of the third year. One of the principals who did not favor merit became acting superintendent. Since the plan had not improved instruction, our primary objective, the staff recommended that it be dropped after its trial period.

Summit, N.J.

Roberts vS. REED

Under our plan, the superintendent, the principal of the building, and department heads rate each of our teachers every year. Our plan is based on a point rating scale and utilizes a complex "position analysis" which defines the teacher's duties and responsibilities. The judgment is, how well are these responsibilities being met? Teachers judged meritorious are given salary increments double that of the usual annual raise.

We have made no radical changes, but minor ones are made as the need arises. The plan itself is examined annually by the persons who do the evaluating, by the teachers' association, and by the management consulting firm which helped us develop and implement the system.

There was universal acceptance of our plan. When there was an occasional objection, the person was given a chance to explain. We did some explaining, too. If the objection was valid, we investigated. Teachers felt they were being treated fairly and honestly.

Our plan has been successful in every respect. All of our objectives have been reached. If there was one key factor in our success, it was developing an evaluative instrument which eliminates judgments based on highly subjective observation. I don't care how good a merit plan is—it isn't going to work unless teachers have confidence in their evaluators. **End**

How to double or triple y

Do you need more time to get things done? A way to get more time is to accelerate your reading speed. It takes no special talent to do it—just practice and willingness to break inefficient reading habits. In this three-part series, you can learn to cut your reading time in half. This is the second of the three "lessons."

PART 2 OF A 3 PART SERIES

■ ■ ■ Through skilled reading habits you can dispense with your "must reading" in half the time it now takes you.

In the first article of this series, we discussed a technique for faster reading called "phrase reading." In order to acquire this habit you must develop an awareness of phrases. This can be done consciously at first by circling phrases in pencil and then by re-reading the article phrase by phrase rather than word by word. Gradually you will develop the ability to see phrases unconsciously.

Beginning readers, and most untrained readers, depend on saying and hearing the words, as well as seeing them. But, while you can see and comprehend several words at once, you can say or hear only one word at a time.

There are various techniques to help your comprehension and concentration which will be discussed at length in this and future articles. It should be stressed, however, that many people are very hesitant to use speed reading techniques for fear they are dropping in comprehension. This is not true! To be sure, at first perhaps you will be thinking so much about the technique itself that your comprehension will drop.

Like learning to play the piano. First, you concentrate on placement of fingers on the keys and the resulting melody will be static, uneven and quite far from perfection. Chances are you hardly hear the melody because it is necessary to concentrate fully on the new physical techniques. Once you become unconscious of the new movements, then it is possible to concentrate entirely upon interpretation rather than on individual notes.

This same method applies to reading, though the skills described do not require nearly as long a time to acquire. Push yourself to read rapidly by phrases until it seems that you are fairly skimming the page. Many administrators, being taught to read in this way, have a great deal of trouble in overcoming the fear of missing something, especially those who are in positions which require careful reading.

Self pacing

Adjust your pace to the purpose. An automobile has several gears for several purposes: low for power hill

le your reading speed

WORKSHOP FOR SCHOOL MANAGERS

climbing, driving on slippery ground and rough places; high for ordinary roads; overdrive for speed. You can adjust your reading gear in the same way, according to your purpose in reading and the difficulty of the material. After pre-reading, determine which reading rate to use.

Low gear (painstaking, thorough reading): Important and difficult new concepts in your field. Reading material you need, the terminology of which is strange to you.

High gear (normally fast reading): Fairly routine articles in your own area of knowledge. Non-technical but important topical material. Departments in SCHOOL MANAGEMENT (slowing into low when an item is particularly important to you).

Overdrive (skipping, skimming): Reviewing material already familiar to you. Searching for a particular fact in otherwise irrelevant material. Fast glimpse of main ideas in an article.

As you develop a smooth rhythm of phrase reading then also practice shifting gears, reading fast or slow depending on the material. Learn to adjust rapidly to the nature of reading material before you. It will give you a greater feeling of control and the resulting efficiency will allow you to do all work with greater confidence.

Review

By now you are probably using the phrase reading and columnar reading techniques described in the first "lesson" in this series. If you are still having trouble, it may be due to one of two things:

- You are looking directly at the line rather than at the space above it. By looking above an object rather than directly at it, your span of vision is greater. Keep your eyes focused slightly above the line of print and it will be easier for you to see larger phrase groups.
- Possibly you are still afraid of losing comprehension and hesitate to try phrase reading. This factor alone holds back the largest number of schoolmen who try to learn to read faster. The responsibility of their position causes men in school management posts to read slowly and carefully; therefore they are more reluctant than others to increase their reading pace.

For this reason, it is sometimes easier to practice with fiction material that is of no real value to you. Race across the line with only two or three eye fixations per line until you grasp phrase reading thoroughly. Gradually carry this same technique over to nonfiction material that is not of too great importance to your work and finally, as your confidence increases, apply it to all your school reading. Contrary to average opinion, your comprehension will increase with speed.

How to pre-read

Can you read your morning newspaper while downing your coffee?

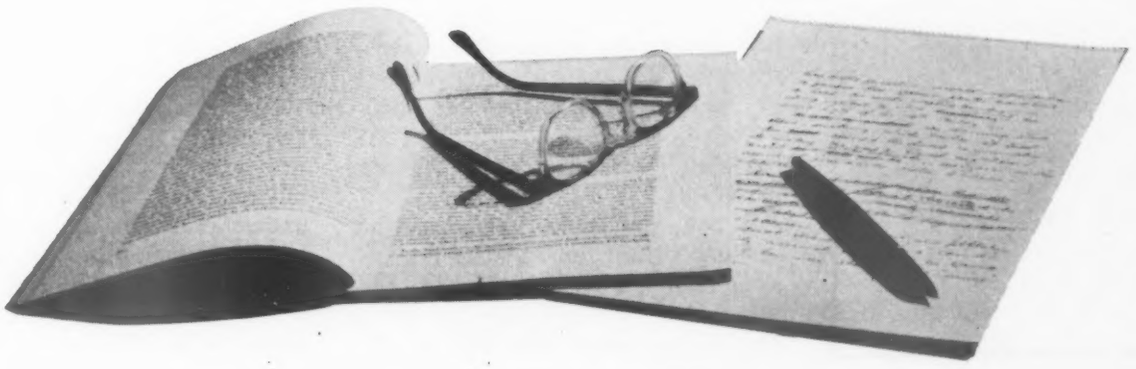
Can you extract pertinent information from magazines and other material without plodding through all of the parts that do not relate to you or school problems?

Do you feel that you are on top of your correspondence, reports and other reading—rather than snowed under?

If you can answer yes to these questions, it means you are now using the technique of pre-reading.

If not, here is how to develop and perfect the pre-reading technique.

Pre-reading is a timesaving preliminary survey of any article, report or other piece of nonfiction. It is a particularly important first step in reading complicated and difficult



material. By applying this method, you can determine if the material simply repeats what you already know. Or it will tell you if it is too advanced, if you must get a better background in the subject before you tackle the article.

Your pre-reading may indicate that the answers to certain of your questions can be found in the article, or that a few new and interesting points are raised in an otherwise elementary discussion. Under such circumstances, you will save time by skimming back through to the points of interest. (More about skimming later on.) If a pre-reading indicates that the article deserves a thorough reading, then you also have saved time by your advanced sampling of the author's style, your foreknowledge of the major points to be covered and the conclusions to be drawn at first reading.

The following techniques may seem elementary. However, a trial application will convince you of time saved and comprehension gained.

1. Look first at the title, author and date.

2. Read rapidly the first two or three paragraphs which almost always introduce the subject in a general way.

3. Begin reading only the first sentence of each paragraph in the main body of the discussion. The topic sentence usually expresses the main idea to be found in the paragraph.

4. Examine pictures, tables, graphs, charts and drawings which often reveal more at a glance than many pages of print. Note all the subheads and bold faced or italicized type which indicate important steps in the discussion.

5. As you read the end of the article or report, the first sentences of the paragraphs will tell when the author is beginning to sum up his discussion. Read these summarizing paragraphs thoroughly but rapidly.

Many publications clearly define these steps for you by using boldfaced type, italics or concise subheads.

The title tells you what the article is about (oftentimes a title can be misleading) and the brief drop tells you concisely what you can expect to learn from reading the article.

At this point you are able to determine how you will approach the material. A swift pre-reading will complete the analysis. The editors have provided subheads, summary lines and ample illustrations enabling you to get a complete impression of the entire article in a matter of seconds.

Parts of newspapers, such as editorials and book and theatre reviews, may be pre-read as you pre-read articles. News stories, however, contain all of the main points in the first few paragraphs. Pre-read a news story by reading the first paragraph thoroughly and skimming the second and third paragraphs rapidly.

Skimming is not rapid reading; it is a substitute for reading. Pre-reading will tell you if an article, book, etc. should be skipped, skimmed or read thoroughly. Skimming is employed when pre-reading reveals that you need further understanding of the material. Beyond skimming lies thorough reading if you need complete understanding of a piece of writing.

When you skim, you may be looking for a definite fact or the answer to a specific question. On the other hand, you may wish to grasp quickly the main ideas and significant details of a selection. Each purpose calls for a separate method:

Skimming for a fact: Let your eyes travel down the page without actually reading, stopping only twice on each line of print. The easiest way to do this is to place a pencil down the center of a column from top to bottom. Let your eyes make two fixations per line of print, one on each side of the pencil. As you go on to a new column, repeat the process. Keep in mind exactly what it is you are looking for. As you become proficient in this technique you will notice that the number, name or phrase you want seems to stand out on the page.

Skimming for main ideas: Read the first sentences of each paragraph and let your eyes swing down the remaining portion of each paragraph. Names, dates and numbers will catch your eye to fill in one or two details. You will skim principally for main ideas when:

- Pre-reading indicates a need for further perusal.
- You are too pressed for time to read thoroughly.
- You encounter familiar material which is too important for your purposes to skip.

The decision to skip an entire article, chapter or book is based upon pre-reading. The decision to skip portions is a result of skimming. Material should be skipped when pre-reading or skimming indicates that:

- You are learning nothing new.
- The material is irrelevant to your purposes.
- The material is so highly specialized, it demands a proper background to be fully comprehended. In this case you should most likely enlist the aid of other sources before tackling the material at hand.

Few people use these skills well because few people know how to skip or skim without risk or fear of missing material that they need to understand. The person who knows how and when to skip and skim will save himself many hours of laborious reading and will obtain a profitable return on his time investment. **End**

A 64-page do-it-yourself book, which tells you the how, what and why of reading improvement with self gauge to determine your reading rate, is available for $2 from Developmental Research Institute (an affiliate of The Reading Laboratory, Inc.), Order Dept., 500 Fifth Ave., New York 36, N.Y.

A new way to plot your bus routes

A bird's eye view of this two-school district helped establish student eligibility for school bus service. Pupils living outside the lines (color) are eligible because they're more than 1.5 miles from school along normally traveled streets.

From bird to bus. After area was photographed, hundreds of views were overlaid and reduced to form a single mosaic of the whole district. Here, technicians are plotting a one-tenth mile grid on the mosaic. This grid helped establish eligibility for bus rides block by block.

By EARLING W. ZAESKE
Operations Manager,
High School District Number 113,
Highland Park, Ill.

■ ■ ■ In our district, a student who lives more than 1.5 miles from school—according to a customarily traveled route—is eligible for school bus service. A student living closer than 1.5 miles is not eligible.

This used to be the source of one of our greatest headaches.

Each year we made out new school bus routes and decided which students qualified for transportation and which didn't. Inevitably, "borderline" parents, whose children were not on buses, charged the district with everything from "incompetence" to being "unfair."

During the course of such arguments, someone usually muttered something about crows flying. The only way we could dispute a parent's complaint was to drive a car from the school to the home and measure the distance. This, at least, got the parent out of our offices and back into his living room.

Recently, we solved our problem by retaining a local firm to take aerial photographs of the school district and its environs. Now, we measure off the 1.5 miles on an aerial grid. Parents complaining about proximity get a graphic demonstration of why they don't qualify. Arguments have been reduced to zero.

Here's what led us to use the aerial map, and how we employ it:

We have 13 buses in our district. From time to time a committee would plot out routes. The 1.5 mile distance for eligibility was determined by drawing an arc on a city map, using the school as a fulcrum. Whenever questionable situations arose, someone would drive a car over the distance. This was time consuming and bothersome each semester.

When we found that the city, as well as state highway authorities, used aerial photos to solve similar bus routing problems, we decided to give it a try, too. From an airplane, Chicago Aerial Survey, Inc. took photographs beyond the extremes of the district in every direction. The photos were overlaid into a single, wall-sized mosaic. Houses showed up clearly. Streets were labeled.

Then, the firm superimposed a one-tenth of a mile grid over the mosaic and measured the distance from the school to each grid along normally traveled streets. Thus, eligibility was established in each grid, block by block, street by street. Information was published in newspapers, bulletins to parents, and also in reference booklets.

The total cost for the aerial survey came to about $3,000.

Our district already had census information in a data processing system. The transportation information was also put on machine cards, and from this we were able to draw records on population density so we could plan economical bus routes accurately.

When school opened in September, each student who thought he was eligible for bus service, but was not getting it, was asked to fill out a card listing his name and address. Clerks checked these cards against the mosaic and rectified any errors.

Furthermore, the data processing cards—together with the aerial photograph—enabled us to select a site for a new school last year. The punch cards showed us the best general location, where population was heavy, and the photograph clearly showed us open areas, access roads, proximity to noisy industry, etc.

And, as a bonus, we have sold copies of the map to three communities and several elementary school districts within our high school district. Our outlay for the entire project has been reduced to less than $600. **End**

'My teachers are more capable than I of judging a candidate's ability to teach,' says this superintendent. That's one reason why his staff interviews prospects. Here's how it's done.

How to take the guesswork out of hiring teachers

By DR. ROBERT FINLEY
Superintendent
Chagrin Falls, Ohio

■ ■ ■ All too often, when a superintendent looks around for qualified teachers, he has little to guide him when he gets down to making a final decision.

That decision is usually based on the candidate's college grades, a state certificate, and perhaps a brief report of the student-teacher training period. A personal interview helps, of course, but more often than not the final choice is either a hunch, a hope or a guess.

In my district, much of the speculation is eliminated when we hire teachers. Each prospect is interviewed by members of my present teaching staff, and they make recommendations to me and to the school board.

There are several reasons for this. First, I regard my teachers as being more capable than I of judging a candidate's ability to teach, and his knowledge of subject matter.

Second, they know that if they don't pick the right person, his professional deficiencies and academic shortcomings will have to be made up by themselves.

Finally, I have a major concern for the personal relations among my teachers. If I were to pick a prospect myself, without consulting the faculty, he might not get along too well with others. But when my teachers recommend the hiring of a prospect, they always choose a person they like socially as well as professionally.

Almost without exception, therefore, our newly hired teachers have the personal traits and characteristics, and the professional competency, to complement our experienced teachers.

Here, step by step, is how we screen, interview, recommend and hire a prospect:

Screening

The first step, one of the most difficult, is estimating how many vacancies must be filled. Several months before the screening process, all of our staff members are interviewed to see who will be retiring, moving out of the district, or leaving the teaching staff for other reasons. I also project our enrollment, then determine how many teachers will be needed for the following year.

Suppose I anticipate a need for three teachers. I review the applications I've received and write letters or make telephone calls to arrange personal interviews for about a dozen. At each interview, I determine only if the candidate is professionally qualified and acceptable to me personally. Then, I ask him to meet with our teachers. I tell the candidate that these teachers will decide whether or not they would like to have him on our staff.

Interviewing

Those teachers who would be working with the candidate interview him either immediately after the screening, or on some other convenient date. All interviewing is done during school hours. Our teachers substitute for each other so that everyone concerned has a chance to meet the candidate, and so that each candidate can get into classrooms to see our methods. We also arrange group meetings during lunch and after school.

If we are hiring a fourth-grade teacher, for example, every elementary teacher in the school where he would work has a chance to inter-

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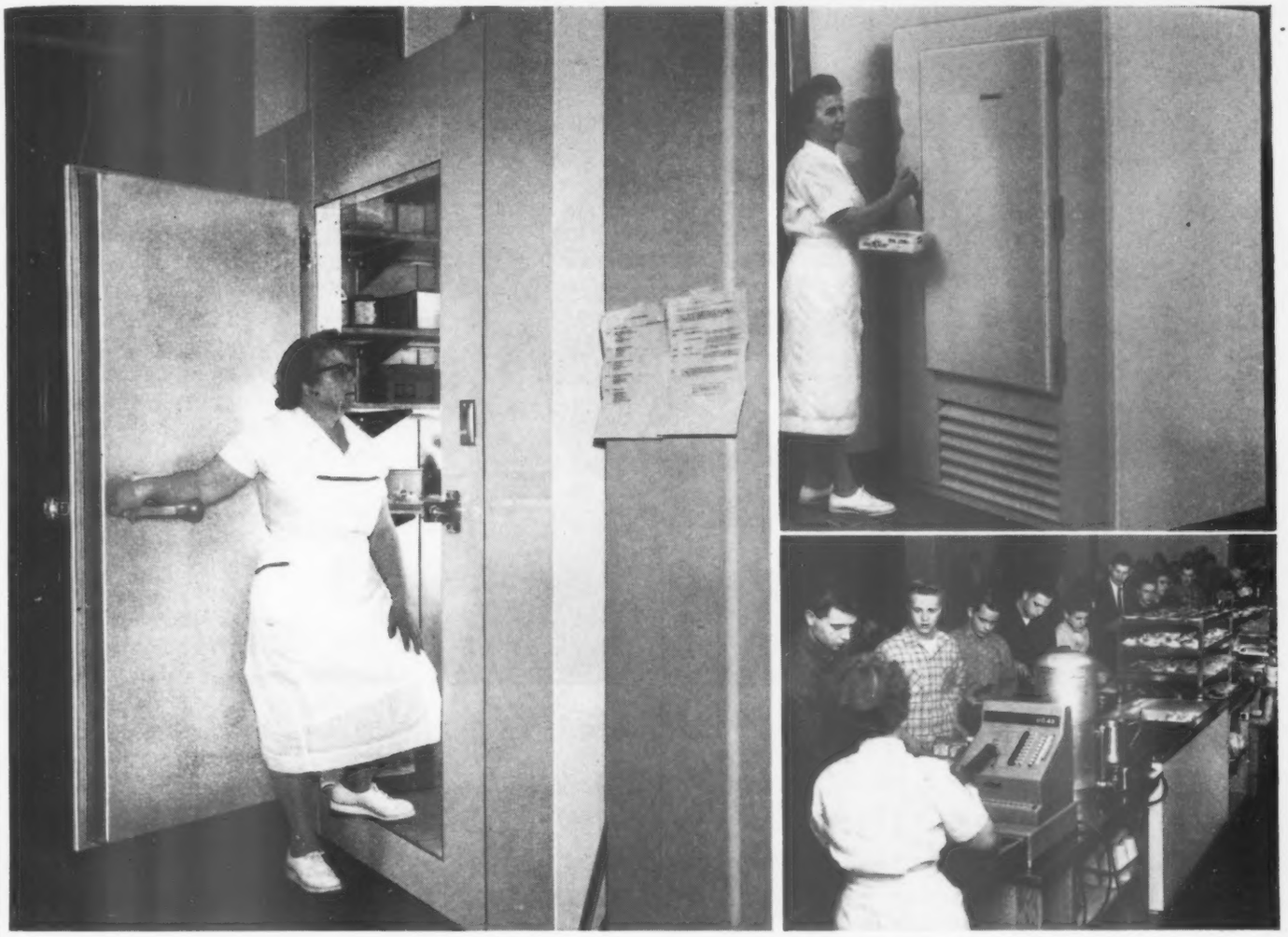

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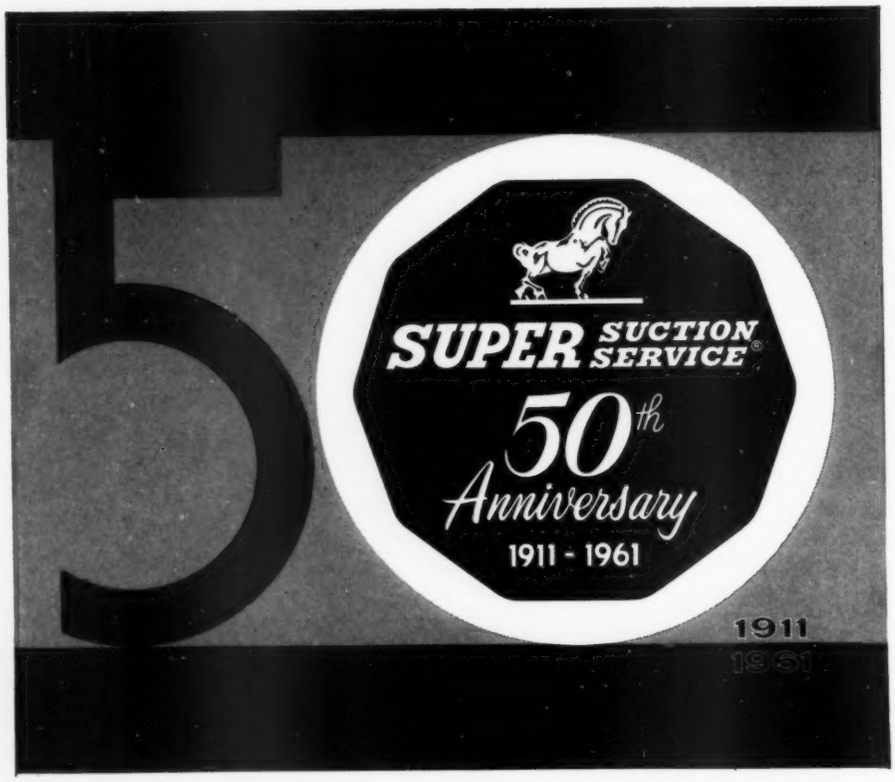

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view him. In our high school, if we were looking for a biology teacher, we would arrange to have the whole science department interview candidates.

All of these teacher interviews are informal—as friendly as the teachers can make them while still maintaining a reasonable degree of responsibility. Our teachers know that the candidate has already passed a screening and is professionally acceptable to me, the principal and, presumably, the school board. What the teachers determine is: Will this person contribute to good staff relations, or will he be a disturbing influence? Does he know his subject?

One of our techniques is to turn a candidate loose for an hour or two and tell him to go anywhere in the building or district he likes; to ask any question he wants. Our personnel is asked to be courteous and helpful and answer any questions.

If the candidate desires a guide on this tour, he gets one. If not, we give him a card of introduction which says: "Please show this person every courtesy. He is being considered for a position on our faculty."

I never ask for recommendations from more than one or two persons at once. I feel that I get honest opinions from individuals who might not speak up in a group situation.

The recommendation is made to the principal and/or myself. Our decision, then, is based largely upon this comment. If it happens to be a negative recommendation and decision, we tell the prospect why.

One of the benefits of hiring our staff in this manner is that we often find the administrative talent we need on our teaching staff. For example, if we are trying to fill a position above the salary level of teachers, such as a principal, our teachers might recommend a person from among themselves. If the nominee meets the professional standards we require, he's accepted.

Some superintendents might object to this method of hiring teachers because they think they would lose control and responsibility for their district. I don't see it that way. Initially, all candidates must prove themselves to me. And, after the teachers have their chance to see the candidate, I must make the final decision. The authority is still mine, but I'm getting real help in exercising it. **End**

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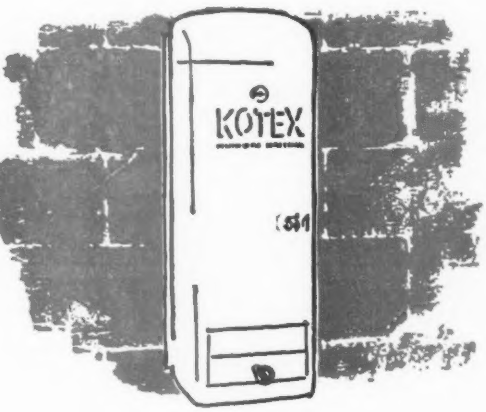

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How to reduce absences of student auto-owners

In Texarkana, Ark., students often drove off the school grounds during lunch, missing afternoon classes. Registration of cars and a parking patrol have eliminated "cuts." Here's how.

By K. B. DAVIS, *Principal, Senior High School, Texarkana, Ark.*

■ ■ ■ Student automobiles in our school might have caused an attendance nightmare if we hadn't found a way to control their use during school hours.

Almost 200 high school students own cars and drive them to school regularly. This is about 25% of our enrollment.

Because most of our drivers obey the regulations, we weren't overly concerned with the traffic problem, but we *were* faced with an absentee problem (particularly in the afternoon classes) and a consequent drop in grades. It seems that many of our students went for "a drive" during their lunch breaks, returning to their afternoon classes late—and sometimes not at all.

Last year we made a study of student auto-owners. We found that in a significant number of cases, their attendance was erratic and they were among our poorest pupils. Good students who acquired cars often suffered a drop in grades, too.

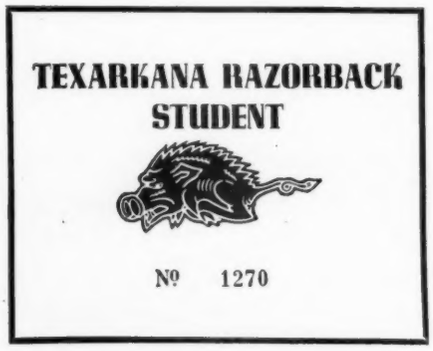
We therefore thought it necessary to restrict the use of students' automobiles during the school day. Here's how it was done:

The rules

Every student who drives his own car to school is required to register it with our clerks. The mimeographed registration form (*see box page 72*) contains a short message on safety and the student is pledged to abide by the regulations or forfeit his right to drive to school. A description of the car and parental and student signatures are required on the form. There is no registration fee.

When the form is returned to the school office, we issue a numbered parking sticker to be displayed on the windshield, and file the form. (It is indexed by name and serial number.) Only a student with the sticker can park in the school lot. And, since we have ample space, we do not allow student parking on neighboring streets.

Once a student parks his car in the morning, he is not permitted to sit in or drive the car until he leaves school in the afternoon. He may leave school during the lunch period but cannot drive his car.



Introducing the rules

Thorough groundwork before announcing the regulations, and timing the announcements were largely responsible for our success.

Before school opened, I presented the traffic and absentee problems in meetings of the PTA, the school board, and other community gatherings. We agreed on these regulations as a solution. A few days before classes began, a brief explanation of the rules was included

continued on page 72

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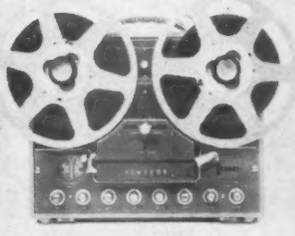
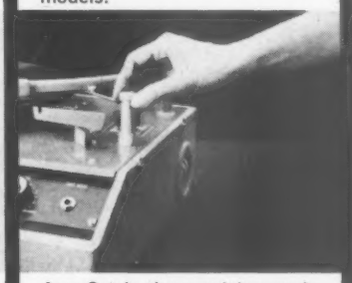
A teaching tool that leaves nothing to be desired, the 12 watt deluxe Model AV-10V has a 9" dual cone speaker, neon strobe.

Portable combination transcription player/public address systems range from this 10 watt R-164V to 80 watt, 4-speaker models.

AM and FM table model classroom radios by Newcomb are made in many models. This is 12 watt music room model AV-1203AM-FM. 3 speakers.



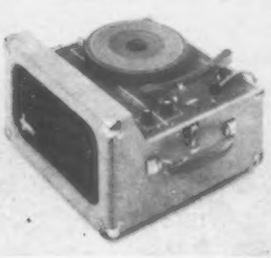
Easiest to operate reel-to-reel stereo tape recorder is the cybernetically engineered Newcomb SM-310 (2 track), SM-310-4 (4 track).



Acra-Set is the precision-made tone arm lifter accessory by Newcomb. Twist knob to raise or lower. 100 division cueing scale with stop.

Headphone Listening Center with jack strip for 8 pairs of phones is built into the versatile AV-164V-LC8 combination player/p.a. system.

80 watt stereophonic player/p.a. system, the portable TRS-1680 is endowed with more features than many permanent installations.



Low cost is the Newcomb R12-C4, a remarkable combination of dependability, high performance, low cost. Transformer powered.

Newcomb Pronunciator, an audio-active language trainer, puts most essential accelerated learning elements into a portable package.

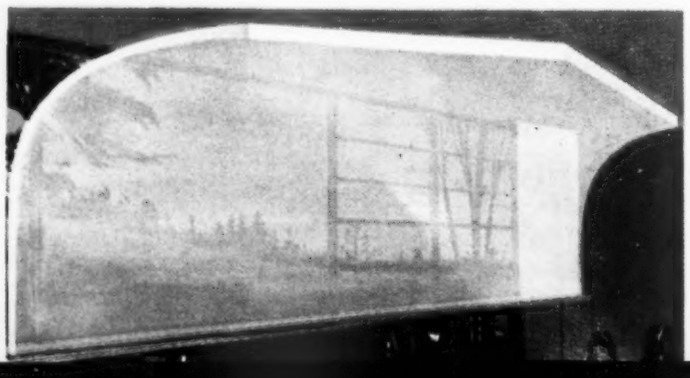
(Circle number 767 for more information)

More student comfort
with trim, efficient T

The Trane Kinetic Barrier System gives continuous, room-wide ventilation

Every student in every part of the classroom has a "fresh air seat" all the time. Students are happier, more comfortable, more alert.

The reason? The TRANE Unit Ventilator constantly delivers tempered air under pressure from room-wide wall outlets all day long. This is the TRANE exclusive *Kinetic Barrier* system that prevents chilling drafts from spilling down off the windows and over to the desks along the outside wall. Next, this barrier of air moves to the ceiling where it mixes with room air and continues to circulate—evenly and gently—into every corner of the room.



Air conditioning now—or later! You may include air conditioning when you install the TRANE Unit Ventilator system—or you may easily add it later. It's designed for easy addition of a remote source of chilled water; no classroom remodeling is necessary.

Versatility. TRANE Unit Ventilators provide just the type of system needed; hot water, steam, chilled water or electric heating. Same space-saving cabinet used for all types.

Simplified maintenance. All maintenance can be performed easily by school engineer. Panels, easily removed and handled by one man, provide access to all working parts. Fans are easy to clean; filters easy to change. Fan and motor bearings are easy to lubricate.

rtmore classroom space
ntTrane Unit Ventilators

New space-saving design gives you as much as 14 sq. ft. more usable floor space

With floor area running about $15 a square foot, this is a big savings! The new TRANE Unit Ventilator is 21% thinner than other makes of heating units—29% thinner than other makes of heating-air conditioning units.

More classroom space. The actual depth of the new TRANE Unit Ventilator is only 11⅝", for heating and ventilating, or for complete heating-ventilating-air conditioning. This is 4¾" less than other units with complete air conditioning. In an average classroom you get approximately 14 sq. ft. of extra, usable and valuable floor space!

Helpful booklet—FREE. For your copy of "A Climate for Learning," contact your nearby TRANE Sales Office—or write to TRANE, La Crosse, Wisconsin.

For any air condition, turn to

TRANE

Manufacturing engineers of air conditioning, heating, ventilating and heat transfer equipment

THE TRANE COMPANY, LA CROSSE, WIS. • SCRANTON MFG. DIV., SCRANTON, PA. • CLARKSVILLE MFG. DIV., CLARKSVILLE, TENN. • TRANE COMPANY OF CANADA, LIMITED, TORONTO • 100 U. S. AND 19 CANADIAN OFFICES

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Listen-Respond Systems

With or without record-review equipment, for foreign language practice, speech, drama and other subjects requiring oral recitation.

Listen Only Systems

For shorthand dictation practice, languages, music or any other subject for which recorded study and supplementary materials are available.

Each system designed, fabricated and tested to fit your 1961-1962 room assignment plans.

- **Portable to use in more than one location**
- **Semi-permanent classroom installation in a temporary location**
- **Classroom - to - Laboratory conversation, with or without student booths**

Simple Cousino CONSOLETTE instructor control consoles now supplied with *either* the acoustic VOICE - FLECTOR or electronic AUDIO-MIRROR for audio-active exercises or recitations.

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ELECTRONICS CORPORATION

1941 FRANKLIN AVENUE

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(Circle number 753 for more information)

AUTOMOBILE REGISTRATION FORM

Traffic around Senior High and all other school areas is of vital concern to the school. One careless moment could cost the life of a student. To promote safety and to insure proper handling of automobiles and other motor vehicles, it is going to require the cooperative effort of students, parents, and the school. We feel that it would be proper for each student who drives an automobile to school and his parents to subscribe to the following pledge:

I, _____, do hereby pledge and
Name of student
agree that I will handle the automobile I drive in a safe and courteous manner around this and any other school. I furthermore pledge to park my automobile promptly and properly upon arrival at school in the morning and at noon, and that I will not sit in a car while parked on or near campus. I furthermore agree that I will not make excessive noise by exhaust or wheels while in the parking lot or near any school campus. I declare that I have a valid unrestricted driver's license.

If at any time I fail to abide by this pledge, I will forfeit the right to drive a motor vehicle to school, and expect other penalties deemed advisable by the school.

Date ....
Signature of Student

.....
Signature of Father

.....
Signature of Mother

Address of Student .....

Make and Model of Vehicle .....Telephone No. .....

Color of Car .....Driver License No. .....

License Number of Car .....Registration No. .....

in routine school announcements and local newspapers. On the first day of school, I made a brief statement over the public address system, setting forth the problem, the community demand for a solution, and the policy we established. Registration forms were distributed and the policy was instituted immediately.

It would be unrealistic to suggest that there was no opposition from the students, but the preponderance of community opinion has made the regulations relatively easy to enforce.

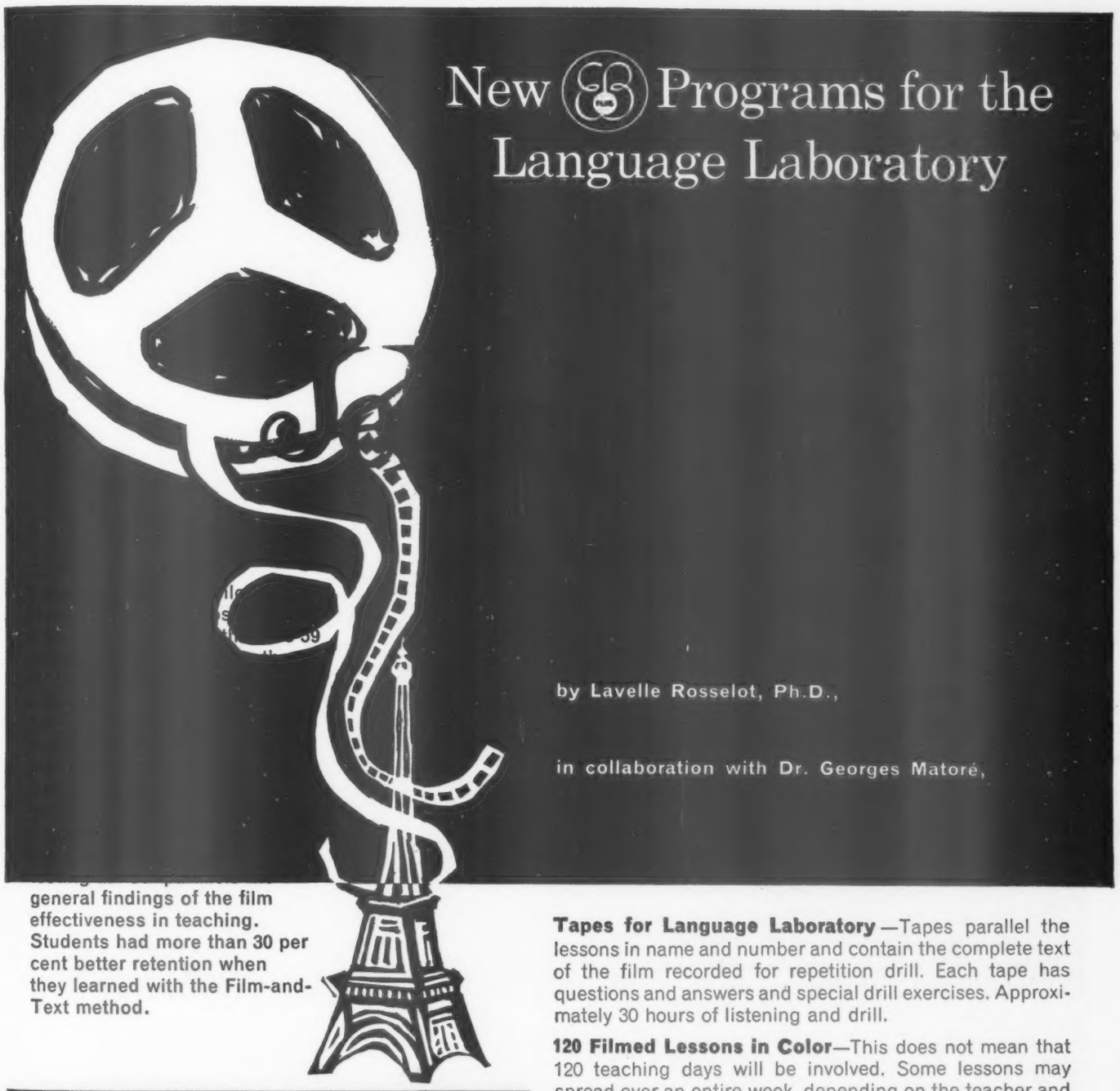
Enforcement

Our daily lunch period consists of two 30-minute periods. One teacher, a popular coach and driver education instructor, is relieved from third period teaching duty. He eats "early lunch" during the first half of this period, then supervises the parking lot during the regular lunch periods (last half third period, first half fourth period). He also patrols the lot before and after school to encourage safe driving, and tours the neighborhood from time to time to insure that all student vehicles are parked in the school lot.

First offenders of any of our regulations, including reckless or discourteous driving on school grounds, are brought before me or the assistant principal for a conference. A second offender is suspended from school. I ask his parents in for a conference and explain the charge; reinstatement is contingent upon their attitude. Even if the student returns to classes, his driving privileges are suspended for a short period.

This is as far as we've had to go. There have been no third-time offenders.

These regulations have improved our attendance considerably. We conducted a 73-day study before and after the regulations, and found that though our enrollment was virtually the same, our absentees had dropped from 2,414 to 1,863. It is too early to measure the regulations' effect on academic achievement, but there is evidence indicating some improvement. **End**



general findings of the film effectiveness in teaching. Students had more than 30 per cent better retention when they learned with the Film-and-Text method.

Tapes for Language Laboratory—Tapes parallel the lessons in name and number and contain the complete text of the film recorded for repetition drill. Each tape has questions and answers and special drill exercises. Approximately 30 hours of listening and drill.

120 Filmed Lessons in Color—This does not mean that 120 teaching days will be involved. Some lessons may spread over an entire week, depending on the teacher and class learning requirements.

Student Text—An exact transcription of each lesson. Spaced appropriately to separate the voices of characters . . . a dialogue scenario.

Teacher's Manual—Contains the text just as in the Student Text. Plus . . . teaching helps that include information on the geographic or historic significance of each location, lists of structures to stress in each lesson, grammar analysis, word review and drill exercises, questions and answers for class drill, and exact text of tape exercises for language laboratory and hints on elaboration of the film action.

Professor Rosselot, Dr. Matoré, Mme. Eristoff and Milan Herzog, EBF Producer, during discussion session in reading room of the Sorbonne. Every foot of film and tape . . . every word of text material was checked and rechecked by Dr. Matoré and his group. His group of experts included phoneticists and specialists in syntax and stylistics in order to insure an accurate, modern teaching course in French.

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(Circle number 768 for more information)

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WEST CHEMICAL PRODUCTS INC.

(Circle number 746 for more information)

How to have air conditioning

and windows, too

Schools can have air conditioning and windows—and still save on costs. Here's how Vicksburg, Mich., achieved this ideal situation in its new junior high school.

■ ■ ■ It is pretty well established now, that air conditioned schools can cost less than conventional ones—if you build a box without windows, "a bricked-in mausoleum," as one superintendent has called it. Resultant savings in perimeter, foundations and area more than offset the costs of installing the air conditioning.

But suppose you want students to be able to look at the outside world? Does that mean you must give up air conditioning—or add a tremendous cost onto your structure? In Vicksburg, Mich., the answer was "no."

The new East Prairie Junior High School has windows in every classroom, is air conditioned and still cost 25% to 50% less than conventional schools in the neighboring area. Here's how it was done.

Functional design

East Prairie is specifically designed for air conditioning. Classrooms are on the outside perimeter of a "block" so students don't get that cooped-up feeling. But the large activity centers, usually found in corners or wings of buildings, have been moved to the center of the structure where they can be housed without adding greatly to the perimeter of the building. These few rooms have no windows.

There is as much glass as in conventional classrooms; but, with air conditioning, fewer windows need to be operable. Overhangs on perimeter areas subject to the sun's heat, and specially treated window glass, help to reduce heat and glare.

The system

The air conditioning is laid out in three zones, any one of which may be operated separately. A "chiller" cools boiler water to 45 degrees, and supplies it to each room at 55 degrees (allowing a cooling loss in transit of 10 degrees).

The same piping is used for heating and cooling the building. A master switch controls the use of either chilled or hot water in the system. Manual valves in the boiler room

All classrooms in the East Prairie school have large expanses of window area. By building around a central windowless core, architects were able to cut costs.

permit the cooling of any or all of the three zones, as desired. A separate system air conditions the offices when the rest of the school is not in use.

Cool but not cold

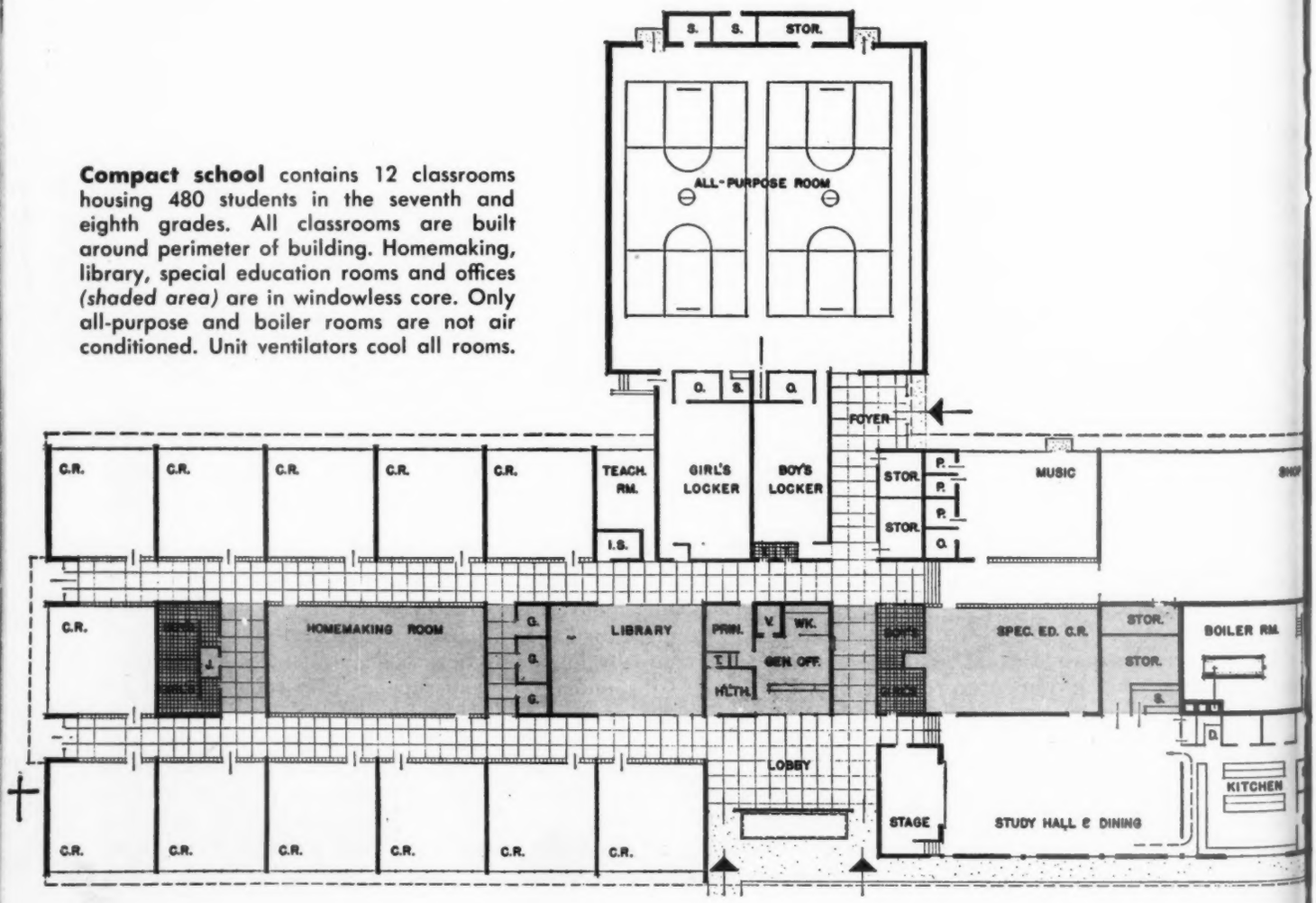
Many buildings are too well air conditioned for comfort. When the system is on fully, they are actually cold. Schoolmen in Vicksburg, looking for ways to further reduce their costs, questioned why it is necessary to cool the school to its utmost capacity. Why not simply cool it to a reasonable level? A temperature of 75, they found, is just as comfortable as a level of 72 or less.

Accordingly, the East Prairie school is air conditioned for average days, not the very hottest. Says Superintendent William H. Taylor:

"We included sufficient capacity to air condition all of the classrooms and the dining room and auditorium under normal conditions, and to air condition probably two-thirds of the classroom-study area under the hottest conditions we are apt to meet at any time. Beyond that we felt we could not justify the additional cost."

Under this system, the cost of operating the air conditioning is equivalent to winter heating expenses and averages about the same —less than $1 per day per classroom in the most severe weather extremes.

The air conditioning is turned on for the first and last months of



Compact school contains 12 classrooms housing 480 students in the seventh and eighth grades. All classrooms are built around perimeter of building. Homemaking, library, special education rooms and offices *(shaded area)* are in windowless core. Only all-purpose and boiler rooms are not air conditioned. Unit ventilators cool all rooms.

school as well as in summertime. The usual close, oppressive classroom feeling experienced in May, June, September, and sometimes October, is missing. Since the school opened, Michigan has experienced several school days of uncomfortable heat and humidity. Only in Vicksburgh's air conditioned building did learning take place as usual.

"Our first interest in air conditioning was aroused by our architects (Trend Associates) about five years ago when we were making plans for an elementary school," Taylor recalls.

"When the subject was first brought up, it seemed like a radical departure. The board was at first aghast at the thought of it. The more we considered it, however, the more reasonable it seemed, and the more necessary it seemed.

"As plans for the elementary school had made quite a bit of progress, board members decided that it might be better to wait until they built the junior high school two or three years later. They decided that if we were going to air condition just one building, it might be of more value to the community to have it there."

An air-cooled junior high school would be the site for all summer enrichment programs, and would be used also as a community center. Says Taylor, "The board decided that the planned location of the junior high school would be more convenient for the general use of the public and for summer school.

"Accordingly, we wrote that into our plans and when we started actual planning, we just assumed it would be air conditioned. By the time we started, the board had completely accepted the idea and was ready to go ahead with it. We just questioned how, and what kind of air conditioning to use."

Another factor was well publicized. "Back when we built the elementary school," says Taylor, "I investigated the cost of air conditioning and found that it would not be very different. Actually, when we built this building, the total cost—heating, air conditioning and ventilating—was a little less per square foot than the cost of conventional heating in the preceding building."

Architect John A. Lattin expands on this point further. "The same mechanical contractor installed the plumbing, heating and ventilating equipment in both buildings. The elementary school, with conventional heating and ventilating and *no* air conditioning, cost 16 cents more a square foot than did the junior high school."

What the public thinks

Air conditioning does not necessarily cost the schools money, but it does *sound* expensive. "There was a little bit of criticism from the taxpayers at first," Taylor remembers, "because, like most people who are uninformed, they had an idea that it was a tremendously expensive thing and that the school had spent quite a lot of money to acquire this.

"But when they found out that the cost of the air conditioning installation was very little different from installing normal heating equipment, it was a different matter."

Says Taylor, "The people are so pleased that we were able to build as good a school as this for $12 a square foot, when they know that other districts are paying $15 to $18 a square foot for buildings which they don't consider any better, that they don't spend much time criticizing the air conditioning or any other special facilities in the building."

As an indication of community acceptance and support, the air conditioned school has become the focal point of civic pride and interest. Rotarians and Masons meet there regularly in the warmer months. Besides the summer school program, it is the center for library workshops, curriculum planning clinics, teacher parleys and pre-school conferences.

"We had our open house at a time when it was just getting warm enough to display the air conditioning facilities. We turned them on and everybody was quite pleased with the response. We occupied the building for five weeks of summer school, and the students were so comfortable that they never realized what they had until we blew something and things were laid up for a couple of days."

During summer school, Taylor recalls, "we almost had to chase the students outdoors. They know that they are going to school in comfort, and they take a lot of pride in it.

"We're happy with the school," he says, "because it has meant extra comfort for our students and faculty at a cost we could afford. And, in addition, it made a summer school —and summer workshop—both possible and effective. But if we had had to give up windows to get air conditioning, I would have been against the whole project. This way, we sort of feel like we have our cake and are eating it, too." **End**

Even core rooms, such as homemaking area shown here, are provided with some natural light. This is accomplished through the use of skylights, which can be opened. Administration was willing to forego windows in this area.

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Shop teachers go back to school--that's how Delta helps you do more! Conducting workshop sessions in the care and maintenance of school shop equipment is practical teacher training. It's just part of Delta's contribution to improved industrial arts and vocational education programs. For assistance in solving your shop problems call your Delta Industrial Distributor—he's in the Yellow Pages under "Tools" or "Machinery."

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THE FIRST ANNUAL

School Public Relations Awards

Has your district done an outstanding job in any aspect of public relations? Here's your opportunity to gain national recognition and, at the same time, to share your 'know-how' with others.

■ ■ ■ Here is an invitation to bring any of your outstanding local public relations efforts to the attention of a national audience.

These new awards, jointly sponsored by the School Board Publications Association at Rutgers University, and SCHOOL MANAGEMENT magazine, are open to any public school district. Awards will be made in five categories:

1. ***Outstanding School District Periodicals.***
2. ***Outstanding New School Building Campaigns.***
3. ***Outstanding Annual Reports On School Activities.***
4. ***Outstanding Teacher Recruitment Brochures.***
5. ***Outstanding Special Purpose Projects.***

The competition is easy to enter. Fill in the form on the next page and attach a copy of your entry. "Fancy" presentations are not necessary.

You may submit one or more entries for your district.

The examples of good public relations which you submit must have been released by your district during 1960 or 1961. Each entry must be mailed in a separate envelope. Please mark the envelope with the category for which it is intended. No entries can be returned.

Entry form

Note: If you want to submit an entry for more than one category, please use a separate entry blank. Simply provide the information indicated below on a sheet of paper or your letterhead.

Category for this entry: _____

School district: _____

Address: _____

City and state: _____

Number of pupils in district: _____

Submitted by: _____ **Title:** _____

Please describe the objective of the project which you are entering on a separate piece of paper.

Send to: School Board Publications Association, Rutgers—The State University, 46 College Avenue, New Brunswick, New Jersey. **Entries must be postmarked by midnight, June 15, 1961.**

The categories

1. Outstanding school district periodicals

Criteria: Any regular externally circulated periodical (newsletter, magazine, paper, etc.) is eligible. At least three different issues must be submitted. Tell who receives it, how frequently it is published, your objectives in preparing it, who does the editing, and any evidence you have of its effectiveness.

2. Outstanding new school building campaigns

Criteria: A printed piece sent by the school district to the public to explain the need for a proposed new school building program. The entry may be a single folder or brochure, or a whole "campaign." Tell how it was distributed, who prepared it, and any evidence you have of its effectiveness.

3. Outstanding annual reports on school activities

Criteria: A printed piece sent to the public, or to parents, to explain your district's progress and activities during the preceding school year. Tell how it was distributed, who prepared it, its objectives, and any evidence you have of its effectiveness.

4. Outstanding teacher recruitment brochures

Criteria: A printed piece (and any letters which may have accompanied it) which was designed to attract outstanding teacher candidates. Tell why it was prepared, how it was distributed, who prepared it, and any evidence you have of its effectiveness.

5. Outstanding special purpose projects

Multiple entries can be made in this category.

Criteria: Any printed piece designed to help solve a special communications problem. Here are a few examples of "special" projects: a school bond financial prospectus; an insert to accompany college entrance applications; a new school dedication booklet; a budget report; a new teacher orientation folder; etc. Tell why the piece was prepared, how it is or was used, who prepared it, and any evidence you have of its effectiveness.

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How Do You Judge Real Value In A Teaching Microscope?

New microscopes represent a major investment for any school. As an administrator or board member, what factors should you consider before approving a purchase requisition?

You must consider price. But it can't be your sole criterion for value! Your school will buy microscopes perhaps once in a generation. A "bargain-priced" microscope may not have the quality it takes to give a full generation of dependable service. You must look beyond price to performance, to the manufacturer and to his dealer.

The new AO Spencer Sixty has *all* the factors that mean real value and economy. It is a 100% American achievement with revolutionary improvements that make it the most advanced, most effective teaching microscope available. Yet it is priced, model for model, with all but the lowest "bargain-priced" instruments.

"AO Spencer" is a name famous for microscopes since 1847 . . . it's your guarantee of unsurpassed quality. American Optical has provided continuous service through its sales representatives and authorized dealers for over 100 years.

You owe it to your school to investigate this remarkable microscope. Compare it with all others . . . then buy it with confidence.

Write for 12 page brochure on new AO Spencer Sixty Teaching Microscopes.

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INSTRUMENT DIVISION, BUFFALO 15, NEW YORK
(Circle number 701 for more information)

Advisory committees

continued from page 48

more so than in any comparable situation—it's probably the fault of the superintendent. He's letting the advisory committee go beyond its realm of authority. There's no excuse, no reason, for the committee to tell an instructor how to run his class or his shop. Most districts avoid this by having suggestions passed via the vocational director.

TRACY: My instructors are urged to attend meetings of their respective committees and the relations are quite cordial, helpful and friendly.

Q. But what about the hiring and firing of instructors? Doesn't a committee make recommendations in this area? Aren't conflicts likely?

TRACY: To a degree, yes. Here's the way we work it: If we are looking for an electronics instructor, our electronics craft committee and the vocational director will interview all candidates to determine their professional qualifications, then recommend two or three names to the principal. The final choice is made by the superintendent and the school board. As for the firing of an instructor, the committee function is negligible. We haven't had this happen, but the committee would have to prove fairly conclusively that an instructor was totally incompetent before I'd let him go.

Q In trying to assist the school vocational program, wouldn't an advisory committee tend to emphasize industry's short-term labor needs, rather than career training?

KING: Certainly. A man who has his own factory within the school district, and who draws his pool of labor from the high school, would be very much inclined to "advise" the school on matters which would directly, and favorably, affect his labor supply. But it's up to the superintendent to see that no such "advisor" ever takes a seat on an advisory committee.

TRACY: That's right. We're very careful to stay away from what we call the "shop production" approach. We talk only in terms of

MILDRED BALLARD, BLOOMFIELD, OHIO HIGH SCHOOL TYPING INSTRUCTOR,

prefers Royal Electric Typewriters;
says students find "change-over" easy.

"I prefer Royal typewriters in general," says Mildred M. Ballard, "because of their ease of operation, their simplicity and their time-saving conveniences.

"I prefer Royal Electrics in particular because my students experience little difficulty in changing from the manual to the electric."

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training youngsters for careers, not specific jobs. We commit the advisory committee to recognizing the inherent values in career training. Frankly speaking, advisory committees are not always interested in education in general. But the advisors *are* interested in the vocational program. We tell them that we want to take advantage of their interest and their knowledge.

Q. How do you insure the committee's function? What happens if a committee steps over the line?

TRACY: These people are sensible, responsible individuals. When a committee is formed, we explain the philosophy of our total educational program, and how the committee can help in one phase of it. Now, occasionally a member will get out of line. Recently, on one of our advisory committees, an "advisor" simply couldn't understand his position. He refused to learn. When he didn't come around, the committee ignored him in its proceedings. Gradually, he got the drift and dropped out. It's up to the superintendent, at the committee's first meeting, to make it clear that conflicts of interest are taboo.

Q. Don't members resent this interference? After all, they're volunteers.

KING: It's the superintendent's job to make sure the committee understands that its responsibilities are entirely advisory. Each member must understand his own position relative to the committee, and the committee's position relative to the district. If the superintendent sets the record straight in the beginning, there shouldn't be any trouble.

TRACY: The same principle applies to a superintendent's negligence in letting an advisory committee get into vocational administration. He should never allow a committee to assume any function in matters executive, administrative or legislative.

Q. Suppose the committee gets the impression that it's a rubber stamp?

TRACY: I make it clear to my committees that their advice is invaluable. The fact is, I couldn't envision any good vocational education program without an advisory committee, or a series of committees for each craft. **End**

Report to Educators from Joanna Western

Mt. Vernon Junior High School, in Mt. Vernon, Ohio . . .

. . . uses Exlite Shades to adapt classroom to audio-visual room.

How to Control Light...to Light up Young Minds

Classrooms serve double duty through use of EXLITE Room-Darkening Window Shades

As in many schools across the country, Mt. Vernon Junior High School, Mt. Vernon, Ohio, uses Joanna Exlite Shades to convert regular classrooms to audio-visual rooms. These opaque shades by Joanna provide 80% to 85% light exclusion thus permitting use of films, slides and movies right in the classroom.

This saves money two ways—because it eliminates need for building separate audio-visual rooms—and because the original cost and maintenance of Joanna Exlite Shades is far less than other types of room-darkening window coverings.

Teachers appreciate the fact, too, that they don't have to interrupt their class routines while they and their students move from one room to another.

Whatever your school's light control needs are, Joanna Western makes a specialized product to fit your requirements. Have your secretary mail the coupon at the right for complete information.

EXLITE is washable and flame resistant. Comes in 5 colors, widths to 77 inches. Exlite is just one of many window shade and louvered shutter and door products made by Joanna Western.

Mr. Bill Berry
Joanna Western Mills Co.
22nd and Jefferson Streets
Chicago 16, Illinois

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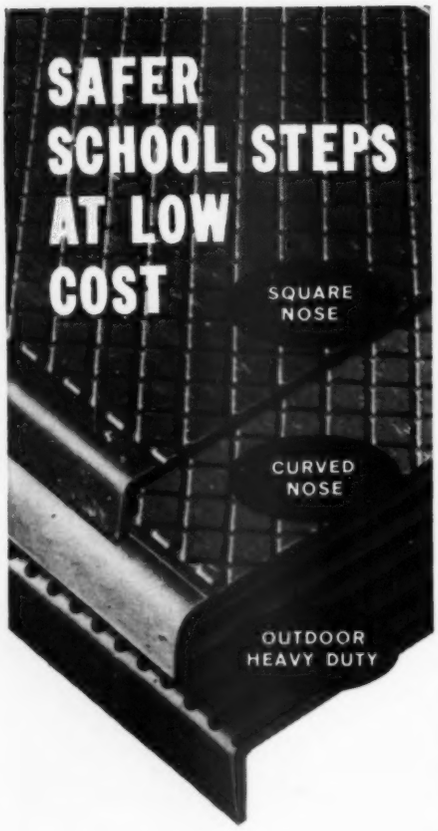

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410 S. Broadway, Akron 8, Ohio

(Circle number 722 for more information)

Language laboratories

continued from page 53

using Model T-13 master record-play amplifier.

AUDIOTRONICS CORP.
Box 505, North Hollywood, Calif.
400 VR/8-HB-3 Portable Language Laboratory System

Listening:
As many as eight students listen via #HS-1 headphones to the model voice on a language record, or a tape recorder plugged into the auxiliary input. Turntable speed may be varied to improve student comprehension.

Responding:
Students may respond in chorus or an individual student may use the #AM-2 microphone and hear his own voice in his headphones.

Instructor contact:
Student receives corrections from teacher sitting with group. Teacher uses #AM-2 microphone.

Recording:
A tape recorder may be plugged into speaker socket to record both the model voice and the student response.

COUSINO ELECTRONICS CORP.
2107 Ashland, Toledo, Ohio
Cousino Electronic Classrooms
Cousino Consolette "Pin Up" Language Learning Systems

Listening:
Student listens to the recorded practice material reproduced through the dynamic speaker of the Voice-Flector. Consolette models are designed for use of all available practice material; sources can be tape recorders, disc players, sound projector, TV receivers; a source of repetitive practice is the Echo-Matic endless tape loop cartridge, played on Cousino Mag-Matic tape repeater.

Responding:
Student responds in chorus or individually; hears his own voice by direct acoustic reflection in his Voice-Flector.

Instructor contact:
Student is tutored by the instructor through the Consolette system using the microphone and speaker in his Voice-Flector. Instructor may monitor and/or record individual student performance without student awareness, interrupt and speak to individuals or selected groups.

Recording:
Instructor may record student performance on a Cousino Mag-Matic tape repeater or any tape recorder through the Consolette system. Recordings may be replayed for individual student review or practice, or for selected groups.

DICTAPHONE CORP.
730 Third Ave., New York City 17*
Dictaphone Dictalab

Listening:
By student via earphones in sound-treated booth to 1) teacher at console; 2) master voice on tape; 3) to his own voice on tape.

Responding:
Student responds 1) to teacher directly or through microphone in student booth; 2) to master voice on tape. Amplifier "balances" sound so that student hears own voice through headset while responding.

Instructor contact:
Communication with instructor though microphone on intercom. Instructor monitors and records individual students.

Recording:
In two positions: at student booth by student; at teacher console by teacher. Student may listen, respond, record. Quarter-track recording especially designed by Dictaphone prevents accidental erasure by student. Master tape duplication is available.

DUKANE CORP.
St. Charles, Ill.
Medallion Language Laboratories

Listening:
Student listens via headphones, and either has model voice on his own tape, or records it thereon from the control center as the laboratory session proceeds.

Responding:
Student responds in chorus or individually; hears own voice in headphones.

Instructor contact:
Student receives instructor correction over intercom from master console. Teacher is able to monitor students individually or as a group, with or without student awareness.

Recording:
Student records his performance, entire or in part, using his own facilities. He makes trials, compares, erases, rerecords, repeats at will.

EDUCATIONAL ELECTRONICS DIVISION THOMPSON RAMO WOOLDRIDGE, INC.
532 Sylvan Ave., Englewood Cliffs, N.J.
MRI Language Laboratories

Listening:
Student in his booth listens via headphones to program from desk-type teacher control console. Program may be from prerecorded master tape or disc, TV, radio, motion picture sound track, instructor's microphone, etc. The Model CD-6L teacher control console contains provision for six program sources, which may be expanded to ten, coupled to a switching panel permitting the instructor to select and connect any student or group of student booths, as many as 150 or more, into any of the program sources.

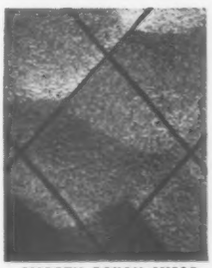
Responding:
Student responds over his microphone, hears his own voice and master material via his headphones.

Instructor contact:
Monitoring and intercom; instructor, undetected can monitor all students,

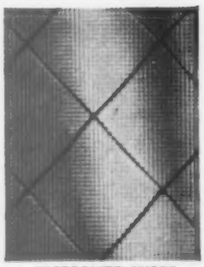
WHERE *Daylighting* SCORES HIGH

North Salinas High School, Salinas, California,

in which approximately 2,000 sq. ft. of Mississippi's Smooth Rough MISCO wire glass has been installed in skylights.
Architect: Jerome Kasavan, Salinas, California
Puttyless Aluminum Skylights by O'Keeffe's, Inc., San Francisco, California



SMOOTH ROUGH MISCO



FACTROLITE MISCO

HAMMERED MISCO

SYENITE MISCO

Broad bands of beautiful, rugged, Smooth Rough MISCO wire glass in the new North Salinas High School, Salinas, California, are the "best things under the sun". For these large skylights help brighten the entire gymnasium without glare or harsh shadows. Architect Jerome Kasavan and consultants selected translucent Smooth Rough MISCO to provide high-level diffused daylighting in a virtually windowless area, to make seeing easier, reduce the need for artificial light and accomplish a feeling of spaciousness.

Smooth Rough MISCO wire glass is a handsome pattern in keeping with modern architectural trends. And MISCO offers positive protection as a fire retardant in skylights, windows, partitions, doors and wherever else fire and breakage protection is a requisite.

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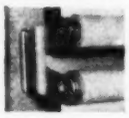
It's so easy to control lighting with STEELECO shades

There are STEELECO canvas duck window shades to give perfect light control for any building. And, STEELECO shades are durable, easy to adjust . . . economical, too, because they last years longer, here's why:



Reinforcing is used in all sewing to keep STEELECO shades looking new much longer. As an added precaution, shades do not come into contact with brackets.

Extra heavy Tex-Steele double-thread cotton duck gives added strength and body. No starches or fillers are used. Can be quickly washed, brushed or dry cleaned.

Long life bronze bearings insure smooth, quiet operation. Oversize springs respond instantly to your touch. Hardwood or metal slats . . . much larger and stronger than ordinary commercial slats.

Mail this coupon for free catalog and name of your nearest STEELECO dealer.

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Oliver C. Steele Mfg. Co.
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(Circle number 758 for more information)

address them individually, in groups, or as entire class. Instructor can maintain two-way conversation with individual students or groups.

Recording:
Student records his performance in conjunction with master lesson material on his Magneticon tape or magnetic disc recorder at his booth or remotely at the instructor's console.

THE EDWARDS CO., INC. EDUCATIONAL EQUIPMENT DIVISION

Norwalk, Conn.

Edwards Language Laboratory Systems

Listening:
Up to 60 students, with headsets and individual controls, can hear lessons channeled from the instructor's console. Up to 13 lesson sources may be programed at one time. Simple transistorized student amplifiers, or more versatile tube-type amplifiers, permit selection of equipment to fit individual needs.

Responding:
Both transistor and tube-type listen-respond units enable the student, equipped with his own microphone, to respond to the recorded lesson and hear his response through earphones. It is possible for the instructor to record student response at the console.

Instructor contact:
Monitoring of any student without his knowledge is accomplished at any time with a single control knob. Instructor may hold individual communication with any student, or may address any group or the entire class via microphone, from the instructor's console. Simplicity of all operations permits full attention to teaching function.

Recording:
The student recording unit enables students to record lesson material on one track and respond on the other track of a dual track tape, simultaneously hearing both. He can play his individual master recording back for evaluation, then practice indefinitely by automatically erasing and recording his own voice without erasing the master lesson. Both lesson and practice material are erased automatically when fresh lesson material is channeled from the console.

FLEETWOOD FURNITURE CO.

Zeeland, Mich.

Lingua-Center Language Teaching Equipment

Listening:
Student listens via earphones and either has a model voice on his own tape (SP-300 student position) or records it thereon from the control center as the laboratory session proceeds (SP-250 as well as SP-300). Consoles available in six sizes and types depending upon complexity of teaching process desired (EC-25, 50, 100, 150, 200 or EC-300 Model consoles).

Responding:
Student responds in chorus or individually. He hears his own voice in his earphones (SP-200 student position), which may be recorded at the same time for future evaluation (SP-250 and SP-300 student positions).

Instructor contact:
Student receives teacher's correction over intercom, using Lingua control center MI 24 or MI 48. Teacher is able to monitor students individually, record their work individually, address them as the entire class or address them by lesson groups.

Recording:
Student may record his performance entire or in part, using SP-250 or SP-300 student positions. He makes trials, compares, erases rerecords and repeats at will or as directed by the instructor.

HAMILTON MANUFACTURING CO.

Two Rivers, Wis.

Hamilton Language Teaching Systems

Listening:
Transistorized student amplifiers with volume controls for program and microphone feed program from master console to student headphones. Instructor has full control of program distribution from sources including tape transports, phonograph, FM tuner, etc.

Responding:
Student responds into a dynamic microphone which is integrally mounted on a flexible gooseneck having a concealed jack plug. Responses are heard in his own headphones.

Instructor contact:
Individual student switches located at the console in the same geographic location as the student in the room permit instructor to intercom, monitor, and record student responses with single switch. Call light behind each switch alerts instructor for student intercom.

Recording:
Optionally the student may record, play back, or erase on a tape transport without danger of erasing master track.

INSTRUCTOMATIC, INC.

8300 Fenkell Ave., Detroit 38, Mich.

Instructomatic Language Laboratories

Listening:
Student listens through Brush crystal earphones to model lesson from ICC or LS console. Console distributes up to 10 lessons at once; may be magnetic tape, records, AM-FM radio, motion picture sound track or live voice with all impedances matched to system through CU-5 or CU-10 coupling unit.

Responding:
Student responds through Turner microphone mounted on gooseneck, or optional boom-type headset. Individual volume control. Hears his own voice amplified; all amplifiers transistor powered. May contact teacher for help.

Instructor contact:
Teacher monitors students individually. Two-way, individual communication. May talk to all students at once or to a group of students. Also, student-to-student or student-to-class communication.

Recording:
Teacher may record students at console; as many students at one time as there are rows of students. Student may record master lesson and his response,

compare, erase, rerecord at will without erasing master, SU-1-TD or SU-2-TD. Also plug-in jack for portable recorders.

LANGUA-LAB, INC.
167 Chestnut St., Albany, N. Y.

Langua-Pak

Listening:
Unlimited number of students may listen through telephonic headsets to unlimited number of program sources through simple transistorized amplifiers.

Responding:
Students respond in chorus or individually, hear own voices through headsets.

Instructor contact:
Face-to-face personalized individual tutorial private two-way electronic intercommunications at each booth position. Remote surface mounted desk top instructor console optional.

Recording:
Remote (out of booth) recording on second channel of dual channel recorder. Employs reel-to-reel, fully reversible tape cartridge.

MAGNASYNC CORP.
5546 Satsuma Ave., North Hollywood, Calif.

Magnasync LL-16 Language Laboratory

Listening:
Student listens via Brush B-206 earphones to model voice on program or from instructor at control center. Model voice is recorded on student's channel along with his own voice. Console contains a one-quarter inch tape playback unit and a three-speed phonograph of the user's choice.

Responding:
Student may either respond in chorus or with the instructor individually, using a Magnasync LLM matched microphone; hears his own voice in his earphones.

Instructor contact:
Student can be monitored individually by the instructor and receive correction from the instructor console. Teacher is able to talk to students individually, or in sub-groups or as a whole group.

Recording:
Student records his entire performance on one channel of the Magnasync 1016, 16 channel master recorder. He may make trials, compare, erase, rerecord, and/or repeat, under the control of the instructor.

ROBERT C. MERCHANT
Box 594, West Lafayette, Ind.

RCM Custom Language Laboratories

Listening:
Student listens via headphones to model voice from Mark IV control console.

Responding:
Student responds in chorus or individually; hears his own voice amplified in his headphones.

Instructor contact:
Student receives instructor correction over intercom from control console. Instructor may monitor students individually or address them either individually or as a group.

Recording:
Student records his performance, entire or in part, on all transistor MC-16TA 16-track tape recorder remotely controlled by the instructor from the control console. Up to 16 students per tape recorder may simultaneously listen, record, play back. Only headphones and microphone at student position. Automatic volume control.

MOBILE-TRONICS
1703 Westover Rd., Morrisville, Pa.

MT-8P—Mobile Audio Active Language Laboratory

Listening:
Each student listens via Cannon headsets (2000 ohm) to the model voice from the tape deck (Webster Ekotape) Model #320

Responding:
Student responds in chorus or with the teacher individually; hears own voice amplified in his earphones using a Turner microphone #141.

Instructor contact:
Student receives teacher correction from the teacher's monitor station. The teacher is able to monitor students individually or address them as a group.

Recording:
The teacher may record the students' performance one at a time on an auxiliary tape recorder.

continued on page 92

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...with the Quadraline Series 1300 Junior Executive and Series 500 Chair. The student counterpart of adult working facilities, the Junior Executive provides more productive working conditions for both student and teacher. Alternate book boxes permit staggered seating, allow each student a "front row" seat. Or a variety of multiple group arrangements afford great flexibility to meet changing classroom needs. Equally businesslike is this rugged unit's ability to deliver year after year of inspiring student service.

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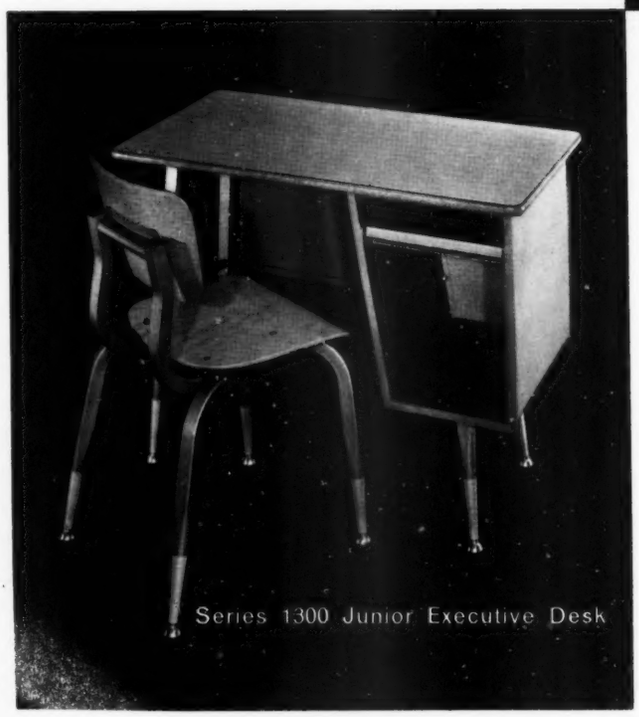

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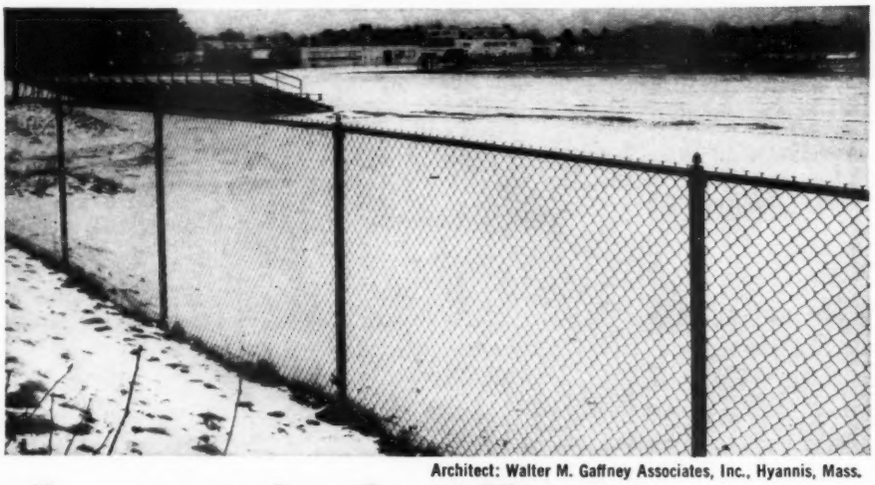

Architect: Walter M. Gaffney Associates, Inc., Hyannis, Mass.

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MONITOR LANGUAGE LABORATORIES DIVISION
ELECTRONICS TEACHING LABORATORIES, INC.
5034 Wisconsin Ave., N.W., Washington, D.C.

Monitor Language Laboratories

Listening:
Student listens via headphones, and either has model voice on his own tape or records it from a choice of five standard audio lines originating at the instructor's monitoring console. Console contains two half-track tape playbacks and four-speed phonograph.

Responding:
Student responds individually or in chorus; hears his own voice amplified in his headphones.

Instructor contact:
Student receives instructor correction over intercom. The instructor may monitor students individually or address them as a group. Optional feature, the Remotester, oral testing device for automatic transmission of questions and recording of student answers only.

Recording:
Student records his performance, entire or in part, using the dual-channel monitor tape recorder at his booth position. He makes trials, compares, erases, rerecords, repeats at will. Console controlled tape duplication allows simultaneous student recording.

NEWCOMB AUDIO PRODUCTS CO.
6824 Lexington Ave., Hollywood 38, Calif.

Transcription Player-Language Unit AV-164V-LC8

Listening:
Accommodates eight students. Student listens to model voice via Newcomb HDP headphones with individual volume control, or via loudspeaker.

Responding:
Student responds in chorus. Single student may respond into Newcomb N-30 microphone, hear his own voice amplified in his headset.

Instructor contact:
Student receives instructor correction as instructor moves among class members.

Recording:
Student does not record.

RADIO CORPORATION OF AMERICA
Audio-Visual Products, Camden 2, N.J.

RCA Language Laboratories

Listening:
Equipment for the listen-respond system includes a transistorized amplifier, MI-38114-C, at each student position. Program is transmitted to student through teacher's console which contains MI-38131 master panel (for 10 students) and as many MI-38132 Selectorcom panels as required (each panel also serves 10 students).

Responding:
Students respond individually using MI-38003 or MI-12040-B microphone, hears own voice amplified in his headphone.

Instructor contact:
Instructor is in contact with each student at all times; he can monitor any student undetected, communicate individually, in groups or collectively with

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Name.....*Position*.....

School.....

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all students. Records up to six students (per 30 booth console) simultaneously. Student annunciator optional.

Recording:
Student-record booths are equipped with a dual-track tape transport and amplifier. These permit the student to (1) Record the master tape on the master track and his own responses on the student track (2) Play back both tracks for self analysis (3) Play back master track, record anew his response. An interlock device prevents accidental erasure of upper track. As he can with the listen-respond system, the teacher can monitor or communicate with the student.

ROBERT H. REDFIELD, INC.
1020 S. Wabash Ave., Danbury, Conn.

Trans-Sonic Educator "Wireless" Systems

Listening:
Students listen via headphone receivers to model voice from dual track tape recorder, record player or microphone instruction by wireless transmission from one or three student-selected channels from the console.

Responding:
Student responds in chorus or individually hears his own voice in earphones with "activated headset".

Instructor contact:
Students receive instructor correction as instructor moves among class members or gives directions over the microphone to class (TSE 100) or to groups (TSE 300). With "activated headsets" and intercom facility, instructor may monitor individual student when he is in record mode or by directed selection of student's transmission in either TSE 100 or TSE 300 Models.

Recording:
Instructor may record model voice before or during lesson and record students one at a time on other track while student is listening to model voice.

RHEEM CALIFONE CORP.
1020 N. La Brea Ave., Hollywood, Calif.

Rheem Califone Language Laboratories

Listening:
Student listens via headphones, and either has the model voice on his own tape, or records it thereon from the instructor's console as the laboratory session proceeds. Console contains any number of LP-921 tape or LP-922 record playback units and LP-910 master tape recording or playback unit.

Responding:
Student responds in chorus or individually; hears his own voice amplified in his headphones.

Instructor contact:
Student receives instructor correction over intercom. Instructor may silently monitor students or address them individually by rows or groups.

Recording:
Student records his performance, entire or in part, using the Duplex LP-901 or Simplex LP-902 tape recorder at his booth. He makes trials, compares, erases, rerecords, repeats at will on LP-901, or with complete instructor control on LP-902.

SCIENCE ELECTRONICS, INC.
GENERAL ELECTRONICS LABORATORIES, INC.
195 Massachusetts Ave., Cambridge 39, Mass.

Linguatrainer Language Laboratories

Listening:
Student listens via Telephonics TDH-39 earphones to a model voice from prerecorded master located in remote cabinet.

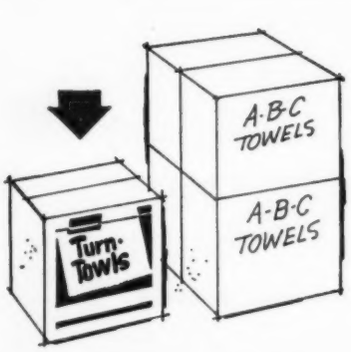
Responding:
Student responds in chorus or individually hears own voice using Turner 260A microphone in his earphone.

Instructor contact:
Student receives teacher's correction over intercom from instructor's console containing Electro-Voice 630 microphone. Teacher is able to monitor students individually or address them as a group. Master selector switch also included for automatically shifting groups of students from one program to another.

Recording:
Student records his performance, entire or in part, using his dual track tape recorder located in remote cabinet. Tape recorders designed for automatic tape magazine which features an automatic rewind and stop mechanism. He may compare, erase and rerecord at will.

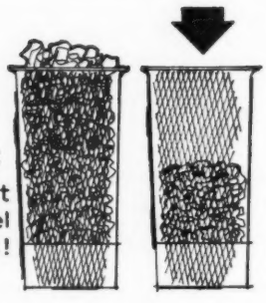
continued on page 96

MOSINEE TURN-TOWLS
produce hidden cost savings



Less Maintenance Cost

Turn-Towl cabinet control cuts towel consumption 50%!



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One case of Turn-Towls goes as far as four cases of ordinary towels!

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New, compact COMMERCIAL ECONOMY PACKAGE

Generates MORE heat and uses LESS fuel

Makes a clean flame . . . by eliminating smoke and soot. The new, unique, forced draft WhirlPower burner achieves total combustion within the fire-cone itself. It starts clean and stays clean.

Sealed combustion chamber . . . Complete control of both fuel and air means 100% combustion and the sealed system eliminates one of the principal causes of heat loss—cold air infiltration.

Surrounds the fire with boiler water . . . for immediate, radiant absorption of heat. No refractory sidewalls to separate the flame from the heating surfaces and store and dissipate heat when burner is "off".

Cuts standby loss . . . during "off" periods by restricting the passage of air through the burner and boiler. Heat is retained in the boiler—not lost up the chimney.

Controls the air supply . . . the entire air supply is introduced through the firing port under forced draft in a sealed system. WhirlPower generator does not depend upon unpredictable natural draft. It needs no chimney; simply an exhaust vent. (Local codes permitting). Operates equally well with chimney.

A complete package. The WhirlPower heating package is a completely assembled, factory wired and tested unit, ready for service connections. Boiler and burner can be shipped separately if desired.

Compact. Cuts headroom needed—compared with old-fashioned boilers—as much as 3 feet. With its compact size comes efficiency and exceptionally high heat production—and substantial savings in installation, fuel, service and maintenance costs.

Mail coupon for full information and specifications

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HEATING AND AIR CONDITIONING
AIRCRAFT COMPONENTS AND EQUIPMENT
MISSILE AND AIRCRAFT GYROSCOPES
ELECTRONIC EQUIPMENT
CONTROL INSTRUMENTS

Iron Fireman Mfg. Co., 3161 W. 106th St., Cleveland 11, Ohio
(In Canada, 80 Ward St., Toronto)

Please send full information and specifications on Iron Fireman WhirlPower Heating Package.

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Address_____

City_____ State or Prov._____

(Circle number 714 for more information)

STANCIL-HOFFMAN CORP.
921 N. Highland Ave., Hollywood 38, Calif.

Language laboratory recorder, Model LL1

Multi-channel, Model CRM

Listening:
Student listens via Model BA220 earphones and either has the model voice on his own tape or records it thereon from instructor's custom console as the laboratory session proceeds. Console contains one or two Model LL1 tape reproducers and additional inputs are available for turntables, projectors, or other sound sources.

Responding:
Student may respond in chorus or individually using Model 630 microphone; hears his own voice in his earphones.

Instructor contact:
Student receives teacher's correction over intercom from instructor's custom console using Model 630 microphone. Teacher is able to monitor students individually and address them individually or as a group.

Recording:
Student records his performance, entire or in part, using his individually controlled Model LL1 dual track tape recorder. He makes trials, compares, erases his practice track at will. Teacher control of model voice track erasure. Or the multi-channel recorder Model CRM may be furnished to handle up to 32 students individually on a single tape; records both lesson material and student response.

SWITCHCRAFT, INC.
LEARNING LABORATORY DIVISION

Switchcraft Learning Laboratory Components

Listening:
Student listens to lesson program source, via headphones, from either central control console or own tape recorder. Console equipped to handle three channels plus auxiliary tape recorder.

Responding:
Student responds individually into microphone and hears own voice, through headphones. Headphones and microphone connected to transistor powered student amplifier at student position.
Instructor contact: Students receive instructor correction over intercom privately, in groups or as entire class. Instructor can monitor any student undetected; can intercommunicate individually or in groups. Instructor may record individual student without detection. Console includes all-call intercom, monitor, record facilities; also equipped for visual and other audio presentations.

Recording:
Recording of student may be done at student position or at central control console. A student, at his booth, may record a lesson and his response at the same time, compare lesson and then re-record his response.

TANDBERG OF AMERICA, INC.
8 Third Ave., Pelham, N.Y.

The Tandberg Language Laboratory

Listening:
Student wearing headphone hears quality playback in proper audio range of master recording from teacher console.

Responding:
Student responds through a microphone which can be monitored by the teacher or recorded on master console. Student hears his own voice instantaneously.

Instructor contact:
The instructor can listen in or record any of the student's responses individually or as a group. Instructor can communicate directly with one or more students through their headphones.

Recording:
The student listens to the master recording, responds and records through microphone and tape recorder in booth. He then plays back and compares his responses with the master.

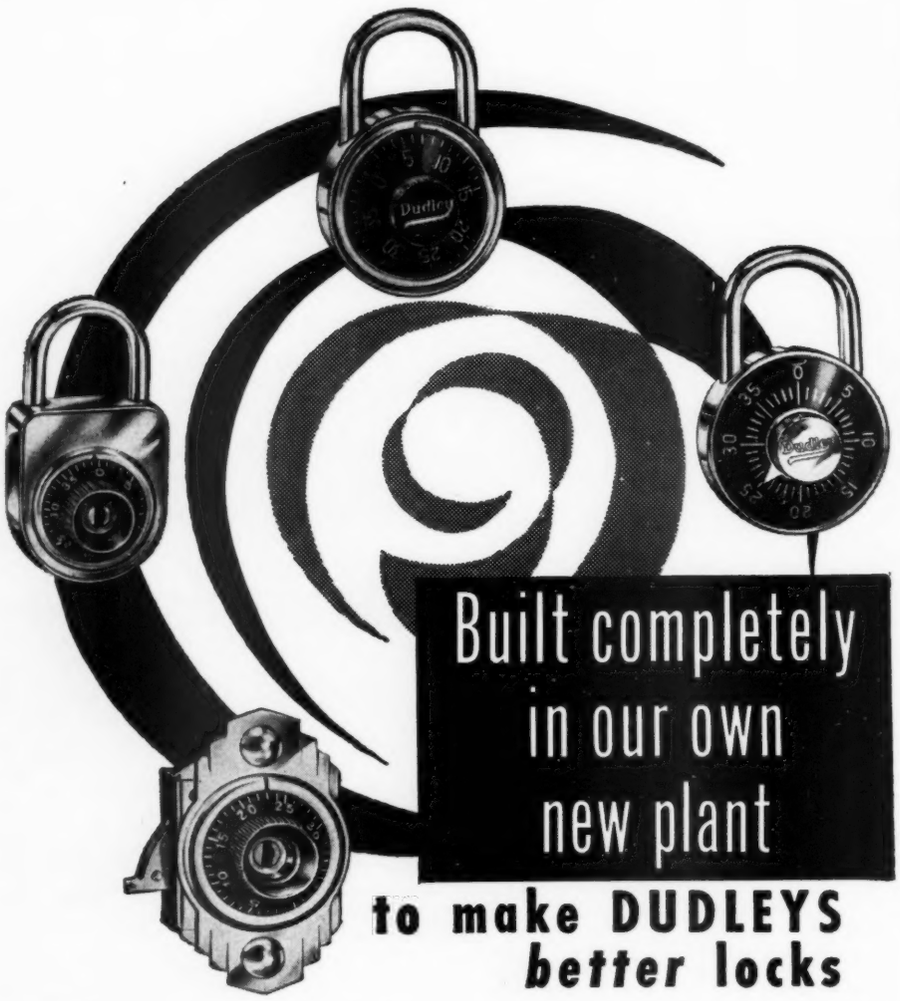
UNIVERSAL ELECTRONICS LABORATORIES CORP.
510 Hudson St., Hackensack, N.J.

Lang-Lab Language Laboratories

Listening:
Student listens via headphones, and either has the model voice on his own tape, or records it thereon from the Lang-Lab L-202 master control console at the instructor position as the laboratory session proceeds.

Responding:
The student responds in chorus or individually hears his own voice amplified in his headphones.

continued on page 98



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Better service and better value than ever before are now enjoyed by users of Dudley Locker Combination Locks. Now, Dudley owns all dies, tools, jigs and production equipment and builds locks completely in a new modern, air conditioned plant, where every operation is carefully controlled by skilled Dudley people.

Whatever locks you need—built-in or padlock, revolving dial or revolving pointer, with or without quick-change combination control—all can be master-keyed and master-charted.

For more than 40 years Dudley Locks have been the favorite locks of pupils, parents and school authorities.

Illustrated above, from bottom, S-540 Master-Keyed Built-In, P-570 Master-Keyed Padlock, RD-2 Padlock with revolving dial, RP-5 Padlock with revolving knob pointer.

DUDLEY LOCK CORPORATION
1436 Old Dixie Highway, Vero Beach, Fla.

The standard of controlled locker protection since 1921

(Circle number 711 for more information)

STROMBERG-CARLSON® sound gives you greater protection of life and property

A gong alerts you to danger . . . but it doesn't tell you where danger lies . . . or how to deal with it. A STROMBERG-CARLSON System provides immediate and complete control when an emergency arises. You lift one of the strategically placed "Red Telephones" and you can talk to the entire school. Being close to the danger area, you direct students and faculty to safety and summon appropriate help.

But you obtain *much more* than a safety system, when you install a STROMBERG-CARLSON School Sound System. You're equipped with a new administrative tool. You have instant communications for local and general announcements, easy direction of school and playground activities and a host of other important uses.

You have an invaluable educational aid that can vastly broaden your curriculum. A STROMBERG-CARLSON System brings into your school a wealth of recorded or broadcast educational material from plays to panel discussions, from current events to literary criticism.

For a comprehensive obligation-free survey of your precise needs, phone your STROMBERG-CARLSON Communications Consultant. Call Western Union Operator 25 for his name and number. Ask him for the brochure, "The School with Sound Offers More Of Everything," or write:

Commercial Products Division
Box B, 1406 North Goodman Street
Rochester 3, New York

GENERAL DYNAMICS | ELECTRONICS

In modern school sound systems . . . THERE IS NOTHING FINER THAN A STROMBERG-CARLSON®

(Circle number 742 for more information)

Instructor contact:
Student receives instructor correction over intercom from instructor console. Instructor may monitor students individually or address them as a group.

Recording:
Student records his performance, entire or in part, using his own facilities. He makes trials, compares, erases, rerecords, repeats at will. System accommodates a variety of recommended tape recorders.

V-M CORP.
305 Territorial, Benton Harbor, Mich.
V-M Audio Learning Centers

Listening:
Student listens via #1410 earphones and either has model voice on his own tape, or records it thereon from up to 10 lesson sources from the instructor's console as the session proceeds. Console may contain V-M 720 tape recorder and 1580 record player.

Responding:
Student may either respond in chorus or with teacher individually using his microphone; hears his own voice in his earphones.

Instructor contact:
Student receives teacher correction over intercom; teacher is able to monitor students individually or address them as a group.

Recording:
Student records his performance, entire or in part, using his V-M 720 tape recorder. He makes trials, compares, erases, rerecords, repeats at will.

WEBCOR, INC.
5610 W. Bloomingdale Ave., Chicago 39
Educator Language Laboratories

Listening:
Student listens via earphones, all types available, and either has the model voice on his own tape, or records it thereon from the Webcor Educator Control Center as the laboratory session proceeds.

Responding:
Student responds in chorus or individually through his microphone, all types available including noise-canceling, earphone and boom-mounted types; hears his own voice in his earphones.

Instructor contact:
Student receives teacher correction over intercom. Teacher can monitor individually or address students as a group; can record them and their comments without their knowledge; student-to-student intercom facility.

Recording:
Student records his performance, entire or in part, using his own facilities. He makes trials, compares, erases, rerecords, repeats at will on recorder with automatic volume control.

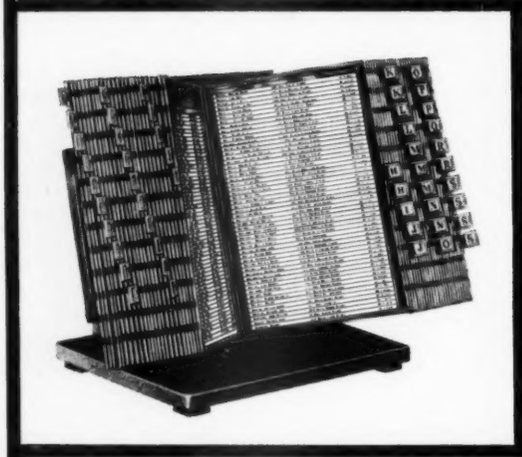
WEBSTER ELECTRIC CO.
1900 Clark St., Racine, Wis.
Webster Teaching Laboratory

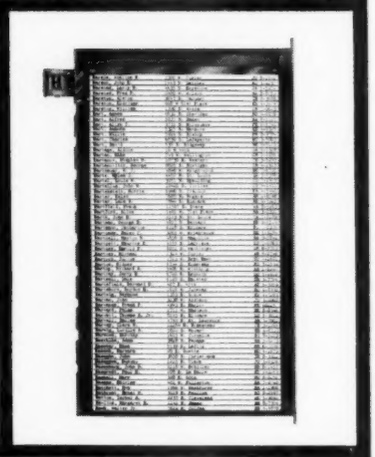
Listening:
Student listens to model voice from either the control console or own tape. Console equipped to handle up to nine channels which may be selected either by the instructor or the student directly. Program source Webster Electric Model 320 Eko-tape.

Responding:
Student responds individually into microphone and hears own voice amplified in headset by transistor. Amplifier located in the student position. Transistor amplifier powered from the control console.

Instructor contact:
Student receives instructor correction over intercom. Instructor can monitor any student undetected, communicate individually or collectively with students. Instructor may record individual student without student's knowledge. Student call-in feature, all-call feature and master record feature permitting the recording of up to six students simultaneously through the control console.

Recording:
Recording of student may be done either at student position or through control console. Using his own facilities a student may record a lesson and his response simultaneously; may compare his response with the lesson and may rerecord his response at will. Optional feature permits teacher to record up to six students simultaneously through control console without students' knowledge. **End**





Acme Visible Flexoline Indexes Make Student Facts Easy To Find

School's packed—classes humming—but who's who and where? There's an inexpensive way to find out as quick as a glance. Acme Visible Flexoline indexes give you fingertip control of the complete student enrollment—serve as a cross index to home room or class.

There are no cards to re-shuffle-no lists to re-type to keep reference day-to-day perfect. Minimum school office personnel easily handles these portable units with capacities of 350 to 25,000 names.

Write Acme Visible for more facts about the world's fastest reference equipment for educational administration. FREE detailed booklets illustrate various school record systems—one tailored to your needs. MAIL THIS COUPON NOW!

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ACME VISIBLE RECORDS, Inc.
6306 West Allview Drive, Crozet, Va.
Please give me detailed booklets on school record systems.

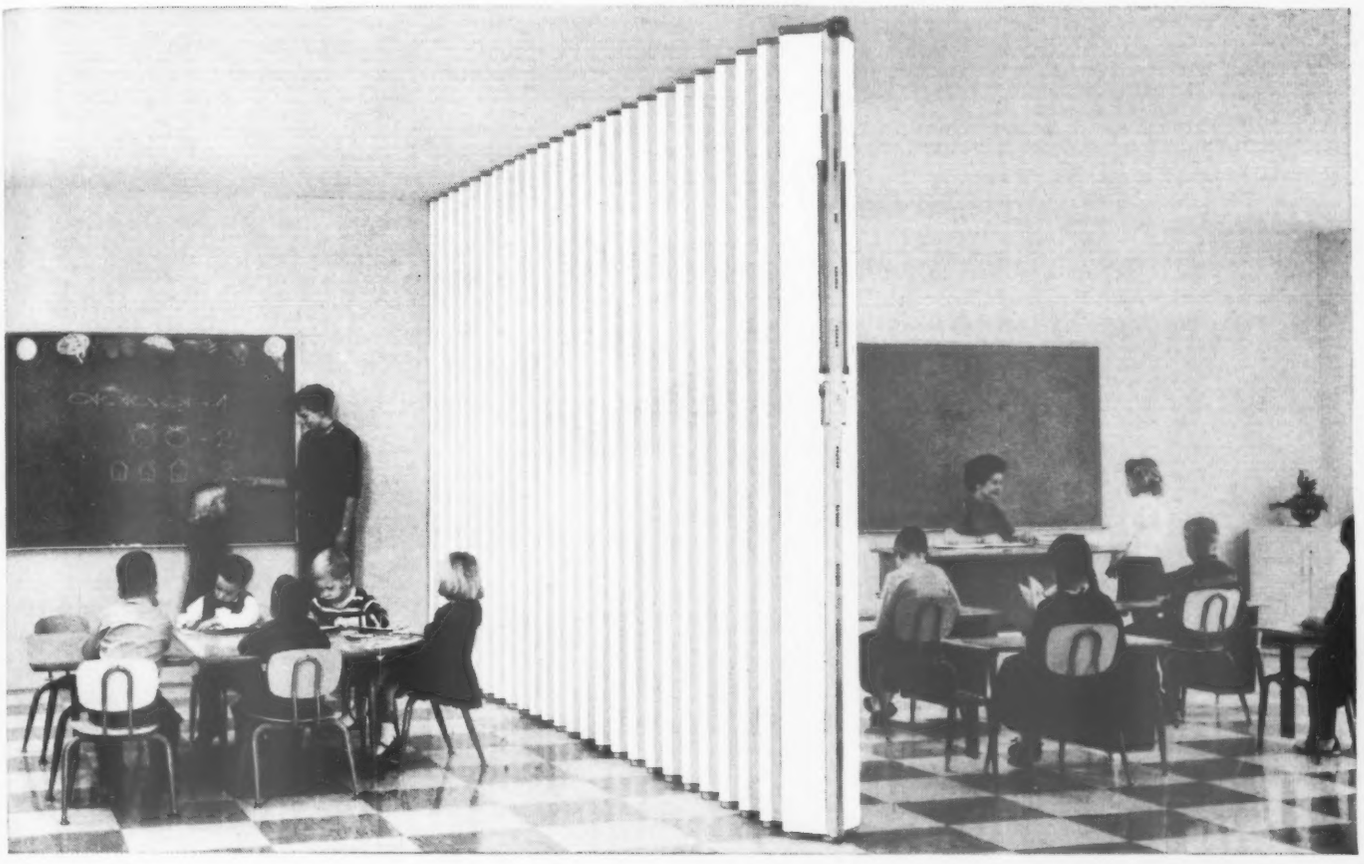
NAME_____ TITLE_____

SCHOOL_____

CITY_____ ZONE_____ STATE_____

(Circle number 700 for more information)

Certified* to shut out sounds other partitions let through



Furniture by Peabody

*Decibel ratings by Geiger & Hamme Laboratories per ASTM E90-55

New! Steel-Walled Modernfold

● *First in sound reduction . . . first in heavy-duty school design.* To separate classrooms, to close off part of the auditorium or cafeteria for special activities, or to divide any area to double your use of existing space . . . you'll find this Soundmaster 240 by Modernfold rivals conventional walls in sound control, yet still lets you reunite divided space on a second's notice.

The heart of Modernfold's sound superiority is in twin walls of steel panels beneath that luxurious vinyl . . . a dense, rigid barrier with eight sound-stopping horizontal edge seals custom-trimmed to the opening.

But this five decibel lead in sound control is only half the story. Because no other partition in the industry matches Modernfold heavy-duty construction. The chart at the right shows you why . . . comparing Modernfold's Soundmaster 240 with the *best* model offered by each of the next largest manufacturers.

Partition	"240"	"A"	"B"	"C"
*Sound Reduction 125/4000 cps av.	37.4	32.4	31.8	27.9
354/4000 cps av. (Industry Standard)	41.8	35.8	36.4	33.0
Acoustic Panels	steel 5⅜" wide, wt. 1 lb./sq. ft.	uses cardboard	steel, 2¾" wide, wt. ½ lb./sq. ft.	uses cardboard
Sealer Strips	8	8	4	4
Foam-Lined Jamb-Seal	yes	yes	no	no
Air Release	yes	no	no	no
Pull-In Latch	yes	yes	no	no
Best Fabric Weight—Outside Covering Only	45 oz. per lin. yd.	45 oz. per lin. yd.	18 oz. per lin. yd.	27 oz. per lin. yd.
Top Row Horizontal Hinge Plate Depth	8½"	3"	(vertical)	1½"

NEW CASTLE PRODUCTS, INC.
Dept. S-561, New Castle, Ind.

Gentlemen: Please send full information on Soundmaster 240.

NAME _____

SCHOOL _____

ADDRESS _____

CITY _____ STATE _____

NEW CASTLE PRODUCTS, INC.
NEW CASTLE, IND.

Manufacturers of Modernfold Partitions and Doors, Air Doors, Modern-Cote Wall Coverings, Peabody School Furniture and Pyrox Sheathed Thermocouples.

In Canada: New Castle Products Canada, Ltd., St. Lambert, Que.

modernfold

(Circle number 729 for more information)

Yours for the asking

continued from page 8

science, guidance, history, government and physical education.

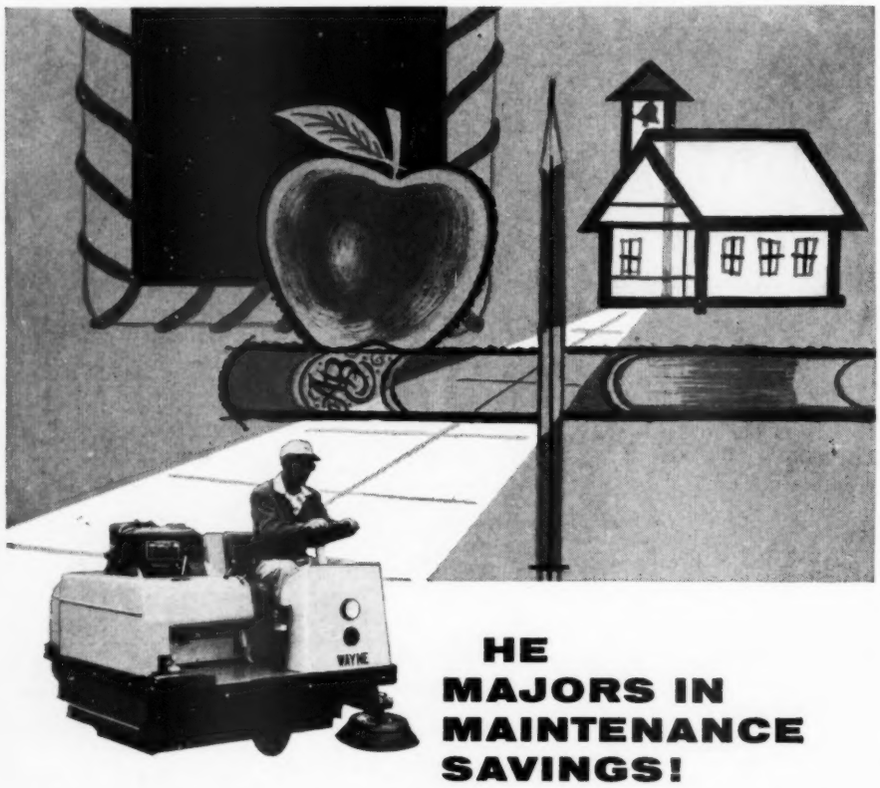
For a free copy of this catalog, circle number 899 on the Reader Service Card.

Shop vises. The Wilton Tool Mfg. Co. is distributing a catalog of vises and clamps suitable for school vocational shops. There are some special vises for elementary shops. These vises are lightweight and have large, smooth handles and knobs. Also listed in the brochure are turret, utility bench, milling machine, and offset vises.

For a free copy, circle number 869 on the Reader Service Card.

Take care of gym floors. Stripping, preparing and sealing wood gymnasium floors is discussed in detail in this booklet published by the J. I. Holcomb Mfg. Co. Included in the 20-page guide are a list of equipment needs, suggestions for setting up a work schedule, a work "flow chart" and service and maintenance tips.

For a free copy, circle number 826 on the Reader Service Card.



HE MAJORS IN MAINTENANCE SAVINGS!

One man and a Wayne Power Sweeper can maintain good school housekeeping in an entire district at savings that will amaze you! He can sweep the paved area of the average school in an hour . . . trailer the sweeper to another school . . . schedule clean-up work right through the week—and still have time for other work.

Nothing saves precious tax dollars more quickly. Tedious, costly push-broom methods are eliminated. Your schools are kept sparkling clean for safety, health, beauty and better morale of students and teachers alike.

A Wayne Power Sweeper is simple and safe to operate. It never raises a dust cloud, and goes quickly and quietly about its work without disturbing classes in session.

Up-date *your* school housekeeping with a Wayne Power Sweeper and save time and man-hours while doing it. There's a Wayne Sweeper size and type to fit every school need . . . every budget.

Get the facts before you— send for details today!

WAYNE

WAYNE MANUFACTURING CO.

3744 E. LEXINGTON STREET, POMONA, CALIFORNIA

Branches: ATLANTA • CHICAGO • NEWARK

(Circle number 754 for more information)

Wall coatings described. The Desco International Association has published a report which explains the properties of wall surfacing materials. The report describes the wide range in quality, technical specifications, maintenance characteristics, and proper use of wall finishes. The publication includes reports on cement finishes, thermo-setting resins, and thermoplastic resins.

For a free copy, circle number 827 on the Reader Service Card.

Drafting room equipment. Everything from files to drawing tables is listed in this catalog of drafting room equipment, published by the Hamilton Mfg. Co. Most of the equipment has been engineered to reduce fatigue. The catalog also includes some space-saving floor plans.

For a free copy, circle number 872 on the Reader Service Card.

Hiss and wow. Confused by language lab terms? Here's a glossary, published by Switchcraft, Inc., of technical terms and expressions you're liable to encounter when investigating or using language laboratories. "Wow," for example, is defined as a change in sound pitch caused by a variation in speed of the tape past the record-playback head. A very fast "wow" is termed a "flutter."

For a free copy of this glossary, circle number 895 on the Reader Service Card.

Floor mats and treads. All types of matting, treads and runners—many designed for specific purposes—are included in this catalog being distributed by the American Floor Products Co. Mats listed are made of rubber, sponge, wood and steel; and the catalog includes coverings for stairs, vestibules and corridors. The catalog also includes mat frames. Illustrated.

For a free copy, circle number 891 on the Reader Service Card.

Literature on records. Libraphone, Inc. has a new catalog which lists literature, drama and music on records available for purchase or rent. There's a children's bookshelf, as well as classics, foreign languages, Broadway musicals, history and politics. In one section of the catalog there are selections from literature in foreign languages.

For a free copy, circle number 893 on the Reader Service Card.

What a wonderful Open World© today's students enjoy

ABOVE: Greenfield Elementary School, Detroit, Mich. Eberle M. Smith Associates, Inc., architects and engineers. In this building: L·O·F clear glass in windows facing court; Heat Absorbing Plate Glass in exterior windows facing south, east and west; TUF-FLEX® heat-tempered plate glass in side lights at entrances; PARALLEL-O-PLATE® glass in transoms at entrances.

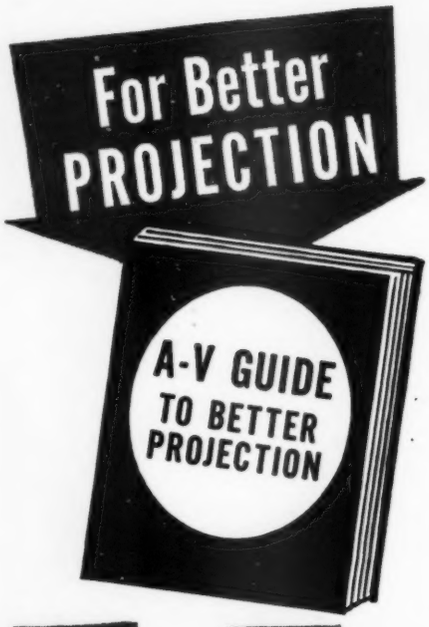
MADE IN U.S.A.
LOF GLASS
THE QUALITY MARK TO LOOK FOR

Gone are the formidable, massive walls that threatened to swallow up children. Now schools are inviting, exciting to enter. Gone are dark, dreary hallways. Perimeter corridors are like bright sun porches. Gone are classrooms that "close in" on students. Now walls of glass let nature become part of the classrooms . . . an "open-world" environment where learning can be fun.

How pleasant for students. And how practical for taxpayers. Glass is a relatively low-cost construction material. And there's a kind of L·O·F glass for almost any need. Your architect can advise you which kind to use to solve special problems. Or ask your L·O·F Distributor or Dealer (listed under "Glass", in the Yellow Pages).

LIBBEY · OWENS · FORD
TOLEDO 1, OHIO

(Circle number 719 for more information)



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AUDIO-VISUAL
PROJECTION GUIDE

An extremely useful guide to anybody who is using or considering using *any* type of projection equipment. Covers motion picture, silent and sound, slide, slide-film, opaque, overhead projection for all types of users—schools, churches, industry, sales. Covers every phase of projection—proper arrangement of projection facilities, acoustics, equipment, screens. Fully illustrated. Is a gold mine of valuable information, complete, thorough—but easy to understand. Fill out coupon for FREE Copy—also full information, specifications on the complete line of Radiant modern projection screens for every need.

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(Circle number 732 for more information)

SM | PRESS RELEASES

News from the business firms serving your schools

'Scope for easy teaching

The American Optical Co. has introduced a new teaching microscope, available in a wide range of models, which is said to make teaching easier than with previous models.

The usual rack and pinion focusing system has been eliminated, and the nosepiece assembly itself can be focused by low-positioned knobs. The focusing mechanism is entirely enclosed in the microscope arm. No periodic lubrication is required.

Objectives are locked into the nosepiece and the microscope has a flat field from center to edge. It's sturdily constructed to withstand heavy abuse. Models are available with a variety of stages, objectives and condensers, as well as choice of an in-base illuminator or mirror assembly.

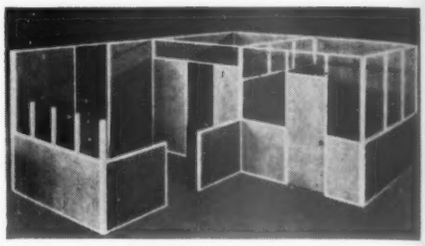
For more information, circle number 856 on the Reader Service Card.

■ ■ ■

Subdivides classrooms

The Simpson Timber Co. has developed a partition system of prefinished components which can be assembled easily and rapidly to subdivide classrooms and office spaces. The partitioning units are available in two-by-eight foot and two-by-ten foot sizes.

Each wall piece is 1⅝ inches thick and has a rigid core of insulating board faced with finished hardboard. There are matching doors and auxiliary panels. The finish, in grey or brown, is resistant to scuffing, fading and staining. The units can be painted after a primer has been applied.



For more information, circle number 829 on the Reader Service Card.

■ ■ ■

Personal PA system

A transistorized public address system weighing only 11 ounces can be carried in its entirety on your person. It is recommended for lecturing to groups of 20 to 100 persons by the manufacturer, J. B. Moore Laboratories, Inc.

The unit is suspended from the neck by a nylon and leather strap. The amplifier is a box-like container, from which the microphone extends on a boom to the lips. Battery powered, it is said to amplify the voice 10 times.

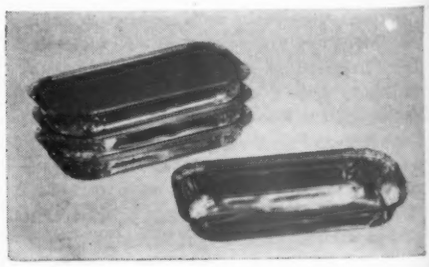
For more information, circle number 887 on the Reader Service Card.

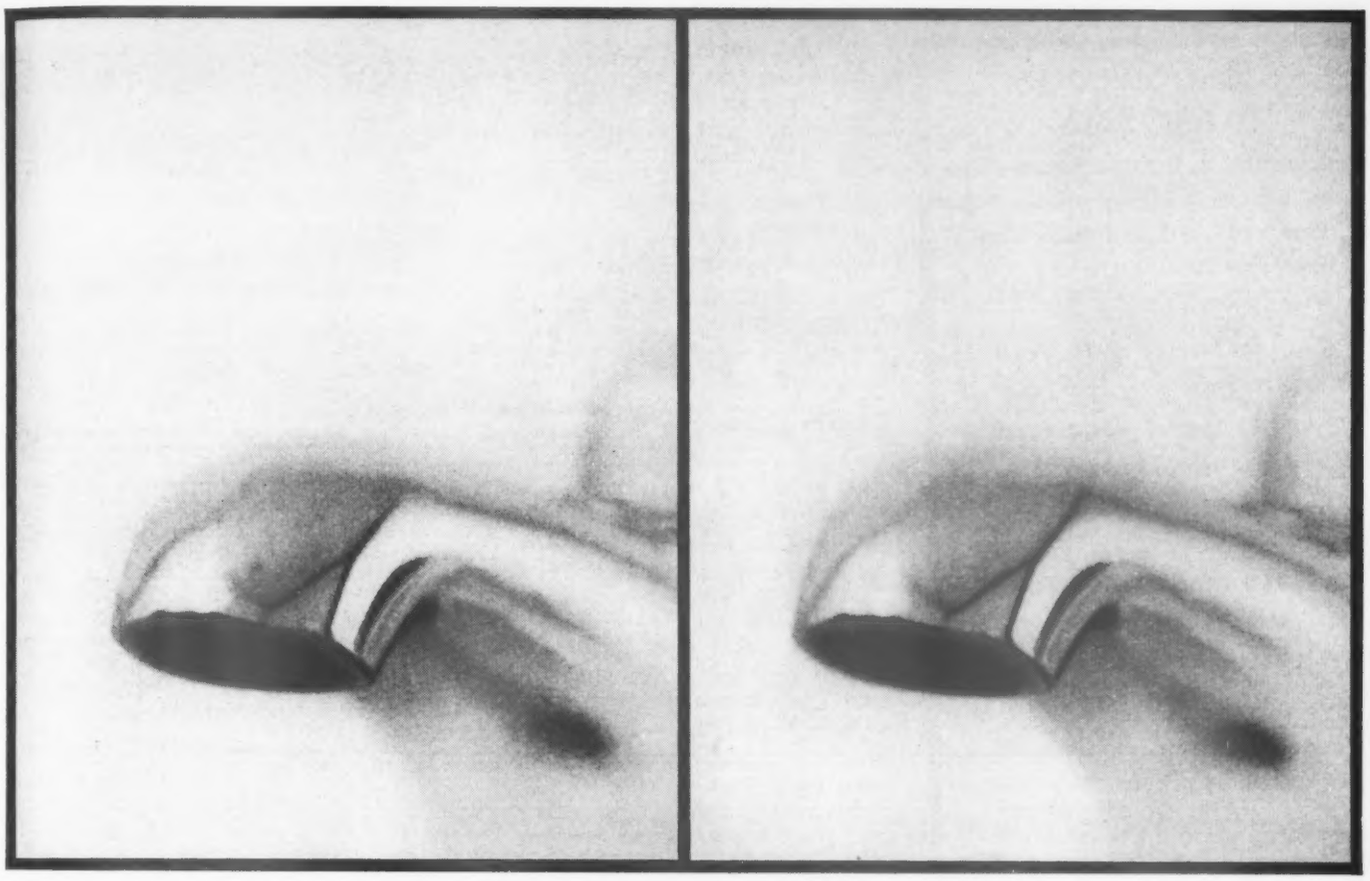
■ ■ ■

Disposable food containers

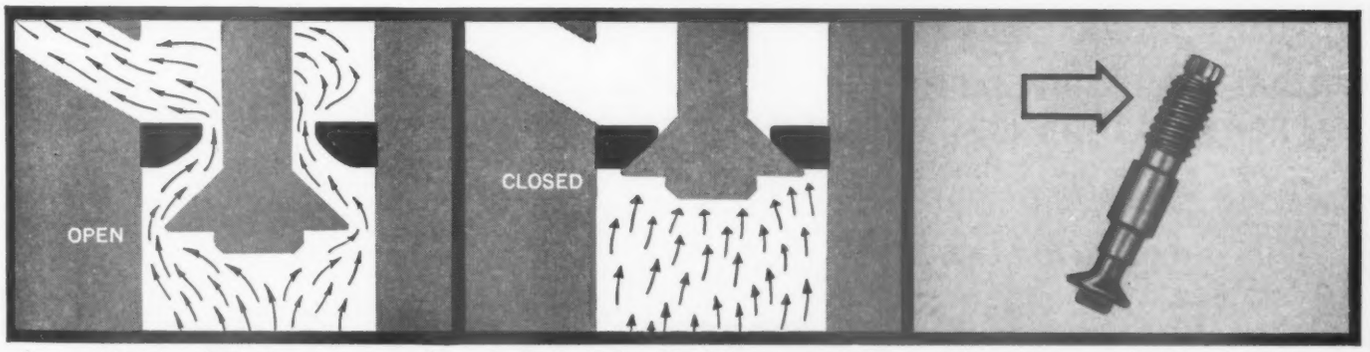
Rigid aluminum foil containers, manufactured by Ekco-Alcoa Containers, Inc., permit cafeterias to serve hot lunches with efficiency and reduced cost. The containers are designed to fit standard steam tables.

These containers are disposable. Instead of preparing food in pans, then transferring it to steam table





One of these faucets will eventually drip. One will not. Can you tell which?



An exclusive Dial-ese control inside the Crane drip-proof faucet (left, above) works *with* water pressure, not against it. Perfect closure stops drips, stays tight... and water can't touch the sealed-off interior threads to cause corrosion damage.

The Crane Dial-ese ends the problem of continually fixing leaky faucets. Stops water waste. And does away with those troublesome leaks and drips that stain lavatories, sinks and bathtubs.

Dial-ese is an exclusive development of Crane. It uses water pressure to provide a perfect seal. The greater the pressure, the tighter the Dial-ese seats itself... unlike regular valves that crush and grind the washer against the seat, causing rapid wear and inevitable leaks.

In our test labs we've actually turned this amazing Dial-ese control off and on a thousand times a day for two years. It hasn't dripped yet.

In schools, hotels, hospitals and homes throughout the country, Crane fittings with these exclusive Dial-ese controls are reducing maintenance costs and water bills. They are made with the Crane flair for precision beyond ordinary standards.

For more information see your regular contractor or Crane wholesaler. Or write Crane Co., Plumbing-Heating-Air Conditioning Group, Box 780, Johnstown, Penn.

AT THE HEART OF HOME AND INDUSTRY

CRANE

VALVES AND PIPING
ELECTRONIC CONTROLS
PLUMBING
HEATING • AIR CONDITIONING

(Circle number 710 for more information)

SCHOOL BUSES FOR SALE

Established transportation firm in Chicago suburb lost their school contract and discontinued business. We have 13 buses priced to sell.

6—1956 Model B600 Ford 58 passenger

2—1955 Model B600 Ford 58 passenger

3—1954 Model B600 Ford 54-60 passenger

1—1952 Model B600 Ford 58 passenger

1—1953 Reo 54 passenger

We consider this an excellent opportunity to solve your bus problem at a bargain price.

***Contact* Wheeling Trust and Savings Bank, Wheeling, Illinois, Phone LE 7-0020, Mr. Gripentrog.**

(Circle number 757 for more information)

trays, the aluminum containers can be used from refrigerator to cooking range to steam table. Cleanup chores are reduced, and transferring the food itself is eliminated.

The oblong containers have a capacity of 48 fluid ounces each, weigh about three pounds, and have optional laminated board covers.

For more information, circle number 854 on the Reader Service Card.

■ ■ ■

Resurfacing agent

Designed for application to concrete, wood and metal floors, a resurfacing agent manufactured by the Masury-Young Co. resists corrosion, is fireproof and has permanent color.

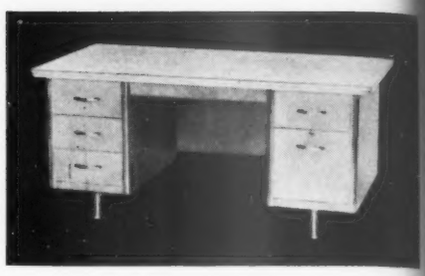
The epoxy material, said to be stronger and more abrasion-resistant than concrete, is designed for application by nonskilled maintenance personnel. It sets quickly and can be walked upon after six hours.

For more information, circle number 841 on the Reader Service Card.

■ ■ ■

Teachers' desks

Two teachers' desks have been added to the line of furniture manufactured by Southeastern Metals Co.



There's a single pedestal desk measuring 30 by 48 inches, and a double pedestal model measuring 30 by 60 inches.

Both models have all-metal bases with plastic laminated tops. They have modesty panels, drawer locks, and are available in metallic bronze, metallic green or chrome trim.

For more information, circle number 868 on the Reader Service Card.

■ ■ ■

Dirt-resistant ceiling tile

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Combining 20 appealing filmstrips in full color with sound on 12" LP records, EN CLASSE encourages maximum pupil participation—the best way for youngsters to learn a foreign language. It develops an extremely wide range of conversation on such subjects as greetings, numbers, songs, colors, days of the week, telling time, parts of the body and many others.

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To see it at work in **your** classroom, call your Smith-Corona representative. And ask about the complete portfolio of teaching aids available.

SCM

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up to 70% of the noise, according to the manufacturer. The tiles are available in two surfaces—smooth and rough—and two sizes—12-inch by 12-inch and 12-inch by 24-inch. Edges are beveled-butt or tongue-in-groove.

For more information, circle number 861 on the Reader Service Card.

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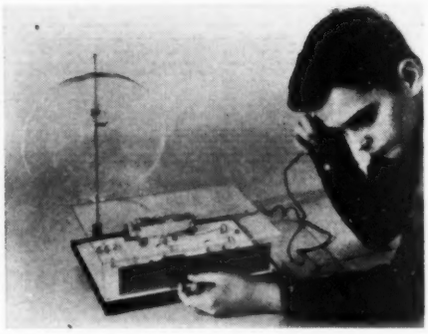
Electronics projects

Seven educational projects—student kits which teach principles of electronics—have been introduced by the General Electric Co. Each kit is



accompanied by an instructional manual; together, the seven manuals constitute a basic technical library in transistor electronics.

The kits are a transistor lab, an analog computer, an electricity lab, an electronics lab, a transistor radio, a transmitter and an intercom. Each kit is fully operable on flashlight batteries and all tools required for assembly are included.

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Tape storage racks

Steel storage racks which hold up to 560 tapes have been made available by the Neumade Products Corp. The racks will accept five- and seven-inch tapes, intermixed, and feature color-coded subject indexing and position retaining clips. All tapes are immediately available on the open shelves.

The racks are welded, and have a pearl-gray baked enamel finish.

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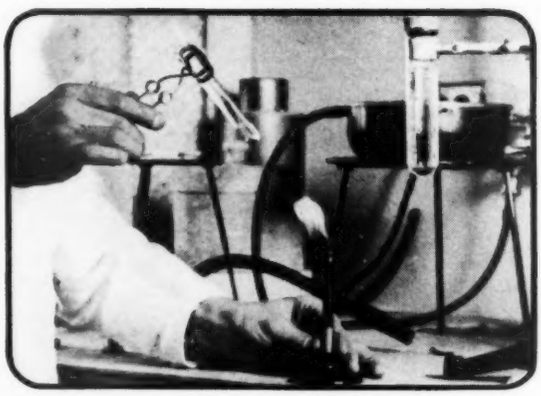

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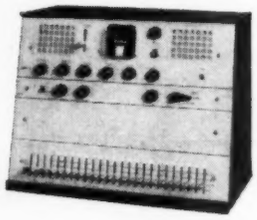

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Chevrolet Motor Div. General Motors Corp. (*Campbell-Ewald Co.*) 6-7
Coronet Films, Inc. (*Irving J. Rosenbloom & Assoc.*) 104
Cousino Electronics Corp. 72
Crane Co. (*D'Arcy Adv. Co.*) 103
Dudley Lock Corp. (*M. Glen Miller Adv.*) 96
Encyclopaedia Britannica Films, Inc. (*Craft Adv. Co.*).... 73
General Dynamics/Electronics (*D'Arcy Adv. Co.*) 97
Haws Drinking Faucet Co. (*Pacific Adv. Staff*) 89
Hillyard Chemical Co. (*Fardon Adv., Inc.*) 81
Instructomatic, Inc. 18
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Joanna Western Mills Co. (*Keyes, Madden & Jones*) 85
S. C. Johnson & Son, Inc. (*Needham, Louis & Brorby, Inc.*) 42-43
Kimberly-Clark Corp. (*Foote, Cone & Belding*) 67
Lennox Industries, Inc. (*Biddle Co.*) 14-15
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A. R. Nelson Co., Inc. (*Givaudan Adv., Inc.*) 22
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Nor-Lake, Inc. (*Kerker-Peterson, Inc.*) 65
Philco Corp. (*Maxwell Assoc., Inc.*)
G & I Group 106
Tele-Teacher TV 5
Radiant Mfg. Co. (*Irving J. Rosenbloom Adv.*) 102
Radio Corporation of America (*Al Paul Lefton Co., Inc.*) .. 36
Rand McNally & Co. (*Franklin Spier, Inc.*) 12
Rauland-Borg Corp. (*George Brodsky Adv.*) 108
Reading Laboratory, Inc. 107
Rheem Califone Corp. (*Space & Time Adv., Inc.*) 41
Rockwell Mfg. Co. (*Marsteller, Rickard, Gebhardt & Reed, Inc.*) 78
Royal Typewriter Co., Div. Royal McBee Corp. (*Young & Rubicam, Inc.*) 83
Schemenauer Mfg. Co. ..... Inside back cover
Science Electronics, Inc. (*L. K. Frank Adv., Inc.*) 9
Shure Brothers, Inc. (*William Hart Adler, Inc.*) 32
H R B-Singer, Inc. 3
John E. Sjostrom Co., Inc. (*Richardson, Thomas & Bushman, Inc.*) 40
Smith-Corona Marchant, Inc. (*Cunningham & Walsh, Inc.*) 105
Smith System Mfg. Co. (*Harold C. Walker Adv.*) ..... Inside front cover
Southeastern Metals Co. (*Brindley-Roth, Inc.*) 37
Oliver C. Steele Mfg. Co. (*Douglas Clark Adv.*) 88
G. H. Tennant Co. (*Colle & McVoy Adv., Inc.*) 30
Trane Co. (*Campbell-Mithun, Inc.*) 70-71
Underwood Corp. (*Geyer-Morey-Madden & Ballard, Inc.*) .. 93
United States Steel Corp. (*Batten, Barton, Durstine & Osborn*) 23-26
Viewlex, Inc. (*Marwel Adv., Inc.*) 27
Virco Mfg. Co. (*Hixson & Jorgenson, Inc.*) 31
Visirecord, Inc. (*Sanger-Funnel, Inc.*) 84
Wayne Mfg. Co. (*L. J. Swain Adv., Inc.*) 100
West Chemical Products, Inc. (*Gardner Adv. Co.*) 74
Wheeler Reflector Co. (*Ingalls Assoc.*) 38
Wheeling Trust & Savings Bank 104

c.) 98
. 33-35
. 90-91
. . . 82
k cover
. . . 92
. 10-11
. . 94
. . 12
. . . 19
. . . 1
. . . 22
. 20-21
) . 13
ell-
. . 6-7
. . 104
. . 72
. . 103
. . 96
. . 73
. . 97
. . 89
. . 81
. . 18
. . 95
. . 85
) 42-43
. . 67
. 14-15
c.) 101
. . 92
. . 4
. . 86
28-29
. . 87
. . 17
. . 66
. . 22
an
. . 99
. . 69
. . 65
. . 106
. . 5
. . 102
. . 36
. . 12
. . 108
. . 107
. . 41
d,
. . 78
&
. . 83
cover
. . 9
. . 32
. . 3
n,
. . 40
.) 105
cover
. . 37
. . 88
. . 30
70-71
. 93
23-26
. . 27
. . 31
. . 84
. 100
. 74
. . 38
. 104
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